Aalto University
School of Business

MANAGEMENT ACCOUNTING CHANGE AND STABILITY

Resistance and Barriers to Change

Master's Thesis
Miihkali Relander
Aalto University School of Business
Accounting
Spring 2020

Aalto University, P.O. BOX 11000, 00076 AALTO
www.aalto.fi

Abstract of master's thesis

Author Miihkali Relander

Title of thesis Management Accounting Change and Stability – Resistance and Barriers to Change

Degree Master of Science in Economics and Business Administration

Degree programme Accounting

Thesis advisor(s) Juhani Vaivio

Year of approval 2020 **Number of pages** 95 **Language** English

Abstract

Management accounting change has been shown not to be an easy and straightforward undertaking and attempts to change management accounting systems often give rise to various types of resistance. This thesis explores management accounting change (MAC) as a process and focuses on resistance and barriers to MAC.

The empirical research has been conducted as a qualitative single case study exploring management accounting change taking place between 2016 and 2019 in a mid-size Finland based publicly traded company. In the timeframe of the study, the target company has gone through comprehensive structural and accounting changes that resulted in comprehensive changes to lines of accountability, the management accounting system and performance measures.

The thesis has adopted Kasurinen (2002) change model as its primary theoretical framework as the model provides a holistic and comprehensive way to analyze MAC. In addition, the thesis is drawing from wide range of qualitative MAC literature revealing prior findings on the phenomenon as well as resistance and barriers to MAC.

The research findings support the prior literature findings of MAC as a process which has been variously affected and frustrated by internal dynamics of the organization. Moreover, the study contributes to the MAC literature and to the Kasurinen (2002) model by connecting sources of resistance highlighted by the literature to the barriers in the model.

Finally, the main contribution of the thesis to MAC literature is the suggested inclusion of leaders and momentum for stability into the Kasurinen (2002) model as this better represents the countering forces of change and stability in MAC.

Keywords management accounting change, resistance, barriers, stability, system

Aalto-yliopisto
Kauppakorkeakoulu

Aalto-yliopisto, PL 11000, 00076 AALTO
www.aalto.fi

Maisterintutkinnon tutkielman tiivistelmä

Tekijä Miihkali Relander	
Työn nimi Johdon laskentatoimen muutos ja stabiilisuus – vastarinta ja esteet muutokselle	
Tutkinto Kauppatieteiden maisterin tutkinto	
Koulutusohjelma Laskentatoimi	
Työn ohjaaja(t) Juhani Vaivio	
Hyväksymisvuosi 2020	**Sivumäärä** 95 **Kieli** Englanti

Tiivistelmä

Johdon laskentatoimen muutoksen on osoitettu olevan monimutkainen prosessi, ja yritykset muuttaa johdon laskentatoimen järjestelmiä aiheuttaa usein vastarintaa. Tämä pro-gradu tutkielma tutkii johdon laskentatoimen muutosta prosessina ja keskittyy etenkin muutosvastarinnan ja muutoksen esteiden tutkimiseen.

Empiirinen tutkimus on suoritettu kvalitatiivisena yhden yrityksen case-tutkimuksena suomalaisessa pörssiyrityksessä. Tutkittava johdon laskentatoimen muutos on tapahtunut vuosien 2016 ja 2019 välillä jolloin kohdeyritys on muuttanut organisaatiorakenteitaan ja johdon laskentatoimen järjestelmiään kattavasti. Lisäksi johdon vastuualueet ja suorituksen mittarit on määritelty yhtiössä uudestaan.

Tämä tutkielma on valinnut Kasurisen (2002) muutosmallin sen keskeiseksi viitekehykseksi koska se tarjoaa kattavan ja kokonaisvaltaisen tavan analysoida johdon laskentatoimen muutosta. Lisäksi tutkielma hyödyntää laajasti johdon laskentatoimen muutoskirjallisuuden havaintoja muutoksesta, vastarinnasta ja esteistä.

Tutkielman havainnot tukevat aikaisemman kirjallisuuden havaintoja johdon laskentatoimen muutoksesta prosessina johon vaikuttaa organisaation sisäinen dynamiikka. Lisäksi tutkielma täydentää johdon laskentatoimen kirjallisuutta yhdistämällä kirjallisuuden havainnot vastarinnasta Kasurisen (2002) mallin muutoksen esteisiin.

Tutkielman keskeisin havainto on ehdotus lisätä stabilisuuden johtaja ja stabilisuuden liikevoima Kasurisen (2002) malliin koska tämä kuvaa paremmin muutosta ja vakautta vastakkaisina voimina johdon laskentatoimen muutoksessa.

Avainsanat johdon laskentatoimen muutos, muutosvastarinta, esteet, järjestelmä, stabiliteetti

Table of Contents

1 Introduction

In 1983, Hopwood highlighted the need for more case studies in management accounting (Cobb et al., 1995). Since then, management accounting change has been extensively studied using qualitative methods. These studies have a revealed a fascinating world of management accounting change efforts are initiated by external pressures such as increased competition (Innes and Mitchell, 1990; Cobb et al., 1995; Burns, 2000; Munir et al., 2013), regulatory changes (Munir et al., 2013; Liguori and Steccolini, 2011) or even gain legitimacy (Siti-Nabiha and Scapens 2005; Dillard et al., 2004) and maintain appearance of rationality (Burns and Scapens, 2000). Furthermore, these studies have shown management accounting change to often be a 'non-linear' process (Burns and Vaivio; 2001; Vaivio 1999) where complex internal dynamics of the organization interlink with external pressures leading to emergence of new accounting practices, abandonment of change efforts and outcomes other than originally intended (Vaivio, 1999; Siti-Nabiha and Scapens, 2005; Liguori and Steccolini, 2011; Valuckas 2018).

Management accounting change has been shown not to be an easy and straightforward undertaking and attempts to change management accounting systems give rise to various types of resistance. However, it has been argued that resistance to MAC and stability of MAS's is widely known but poorly understood phenomenon and only limited amount of studies have analyzed this further (Granlund, 2001), and only few attempts have been made to explain the dynamics that promote inertia in management accounting change (van der Steen, 2009). Therefore, intensive research should be conducted towards why management accounting change fails as there is a lot to be learned from these 'Dark Stories' of accounting change (Burns and Vaivio, 2001).

Nevertheless, there has been a number of studies conducted in the field of management accounting change that have revealed multiple sources of resistance and contributed to understanding stability of management accounting systems. Many of these studies view management accounting as a routine organizational practice and have concluded that accounting change is resisted as people feel comfortable with routines and they provide ontological security (Burns, 2000; Burns and Scapens, 2000; Valuckas, 2018; Van der Steen, 2009). In similar fashion, organizational as well as national culture has been shown to frustrate management accounting change efforts where the goal has been to increase financial accountability (Kasurinen, 2002; Busco and Scapens, 2011; Van der Steen, 2009; Wahiyudi, 2009; Valuckas, 2018). Meanwhile, it has also been argued that sometimes resistance is stemming from the employees not seeing the need for change as the state of the company and its systems are perceived satisfactory even if contradictory evidence is presented (Liguori and Steccolini, 2011; Lukka, 2007, Kasurinen, 2002; Van der Steen, 2009). Whether the resistance is stemming from adherence to routines, culture or believe that there is no need for change, it's in effect a result of questioning the underlying taken for granted assumptions of the state of the company and how things should be done.

As management accounting systems are used to collect and manipulate information used in decision making, changes in them have impact on career progression and resource allocation and as such, change efforts are inherently linked to power distribution within the organization (Kasurinen, 2002). Management accounting change efforts have been revealed to lead to power struggles between finance and other functions (Nor-Aziah and Scapens. 2007), between parent company driving the change and units on the receiving end (Scapens and Roberts, 1993) as well as within the accountants themselves (Granlund, 2001). Management accounting change is often related to increased visibility and when this visibility is coupled with increased financial accountability, it can be viewed as a threat to autonomy of operations or subunits and their operative performance (Scapens and Roberts, 1993; Nor-Aziah and Scapens. 2007). Meanwhile, issues of trust are argued to be essential in management accounting change efforts. Studies have shown that lack of trust in the system being implemented, the actual goals of the change or in the individuals implementing the change, can give rise to resentment and resistance to change (Nor-Aziah and Scapens, 2007; Busco et al., 2006; Johansson and Baldvindottir, 2003).

In the end, management accounting change is viewed differently by different employee groups. For top management, change is often an opportunity whereas for employees and middle management change is not desirable nor welcome (Kasurinen, 2002). Therefore, resistance to management accounting change is inevitable. In addition, there are often real underlying concerns and therefore, resistance to management accounting change should not be branded irrational (Granlund, 2001; Scapens and Roberts, 1993). Finally, the resistance and barriers have been shown to contribute to stability of MAS's, lead to abandonment of change effort, affect the structure of MAS being implemented or even lead to only symbolic implementation of the management accounting system resulting in 'little or no managerial and operative implications' (see for example: Lukka 2007; Siti-Nabiha and Scapens, 2005; Burns, 2000).

The objective of this thesis is to add to the management accounting change literature by revealing how management accounting change has taken place in the target company. The specific focus is to answer the calls for more in depth studies for exploring resistance to management accounting change and stability of management accounting systems. For this purpose, the study has applied Kasurinen (2002) change model that takes into consideration the advancing and hindering forces of change and is argued by multiple researchers (Valuckas, 2018; Munir et al., 2013; Kasurinen, 2002) to provide a more comprehensive and holistic understanding of processes of change. However, the model directs to view management accounting change as a top-down effort and incorporates resistance to change and stability of management accounting systems through the barriers to change. Therefore, additional objective of this thesis is to explore how stability and resistance could be incorporated into the model more comprehensively. As such, the research question that the thesis strives to address is:

> How has MAC unfolded in the target company as process, what resistance and barriers MAC has it encountered and how these have contributed to stability of the MAS?

1.1 Research method and material

Single case studies in management accounting have potential to produce rich accounts which can be especially useful for analyzing conflicts that arise in organizational setting as well as their underlying tensions (Ahrens and Dent, 1998). As such, they can provide a deeper understanding into the studied phenomenon than large sample field research (Vaivio, 2008; Ahrens and Dent, 1998). More specifically, management accounting change needs to be examined in its specific organizational settings as microlevel analysis is needed to reveal the dynamic processes of change (Nor-Aziah and Scapens, 2007).

Therefore, the field research is conducted as a qualitative single case study exploring how management accounting change (MAC) has unfolded in a mid-size publicly traded Finnish multinational company. In the timeframe of the study, the target company has gone through comprehensive structural change from functional organization to a matrix organization and eventually a business unit organization. As a result, the areas of responsibility and lines of accountability have been redrawn extensively. As such, management accounting has undergone major changes to facilitate the new organizational structure of the company. Furthermore, the management accounting reporting has gradually developed to include cash flow and balance sheet metrics in addition to cost center and other PL measures extending the financial the financial accountability of the managers. Therefore, the company is a good target to study MAC as a process.

The six semi-structured interviews are the primary data of the study and have been conducted in English and Finnish either face-to-face or by Teams. The interviews were limited to top management, business line managers and head of operations as they are the primary users of the reports produced by the system and the ones being held accountable for the results. In addition to interviews, the researcher has used multiple sources of data such as reports produced by the MAS, annual reports, press releases, board materials and other internal documents.

While the management accounting change is accompanied by organizational change and cannot be fully separated from it, the scope of this study is to focus on the management accounting change, stability of management accounting system and resistance to management accounting change. Therefore, the literature is limited to management accounting change literature and organizational change literature is out of scope.

1.2 Structure of the study

The thesis consists of six chapters of which the first chapter is the introduction. The following chapter will present the literature in management accounting change, stability and resistance as well as introduce the theoretical framework of the study. The focus of the chapter is to explore findings of resistance to management accounting change in prior research, present the Kasurinen (2002) change model and how it has been used by other researchers. The literature review is followed by methodology chapter where the chosen empirical method is more thoroughly examined and its benefits and pitfalls are discussed. The fourth chapter will present the case company and empirical findings of the study. In the fifth chapter, these findings will be analyzed using the theoretical framework and discussed in relation to prior literature. Finally, the sixth and final chapter will present the final conclusions of the study, limitations, avenues for future research and managerial recommendations

2 Literature review

2.1 Management accounting change

Management accounting systems (MAS) provide information to the management for analysis and control purposes. A MAS can be single accounting tool, technique or a practice such as budgeting (Liguori and Steccolini; 2011), ABC (Granlund, 2001; Malmi, 1997), total quality management (Busco et al. 2006) or beyond budgeting (Valuckas, 2018). In addition to single techniques, a MAS can be viewed more widely as the performance measurement system as whole (Munir et al.2013) consisting of financial measures as well 'non-financial' measures (Vaivio, 1999). However, ultimately a MAS can be viewed consisting of the finance department, its personnel, technology, procedures and reports produced by the system (Cobb et al. 1995).

This study adopts a similar view to Cobb et al. (1995) as the MAS in the study consists of the reporting in the company and all the systems and inputs required to produce the reporting as well as the performance measures produced by the system used in holding managers accountable for their performance. Management accounting change (MAC) is the change in the management accounting system.

2.1.1 Management accounting change as a process

Burns and Vaivio (2001) argue that change is an exciting but problematic concept. What appears to be change on the surface, might be reduced to non-phenomenon with closer examination (Burns and Vaivio, 2001). The changed practice or system might be only symbolically implemented on paper but have little or no managerial and operative implications and as such, is decoupled from daily activities (see for example: Lukka, 2007; Burns, 1999; Siti-Nabiha and Scapens, 2005; Nor-Aziah and Scapens, 2007). As such, normative claims of change must be distinguished from empirical evidence (Burns and Vaivo, 2001). Furthermore, management accounting change can be viewed as centrally driven where management identifies the need for change, plans and executes it in a linear systematic fashion (Burns and Vaivio, 2001). However, the change process is often non-linear in nature as organizations can return to past experiments, reinterpret them and give them new meaning (Vaivio, 1999). Finally, is management accounting change a distinct observable episode or should it be approached as continuous organizational process that has no observable beginning nor end (Burns and Vaivio, 2001). These are factors that need to be considered when conducting research on management accounting change.

Contemporary survey research shows that change does take place in MA practices but fails to explain how these changes have taken place in their organizational settings (Innes and Mitchell, 1990). They suggest that contingency theory perspective can provide explanation as to why specific MAS's can differ between firms due to organizations' specific circumstances that include a set of contingent variables such as environment, technology and organizational structure. However, there are limitations to the use of contingency theory in MAC research. Innes and Mitchell (1990) argue that contingency theory provides only a static comparative explanation of why MAS exists in a certain form in the specific context at any given time. As such, it fails to reveal the dynamics how the changes have led to a certain state and how it will move from that state. Therefore, contingency theory is mainly valuable in revealing some of the factors that may drive MAC but not the change process itself. (Innes and Mitchell, 1990).

According to Burns and Scapens (2000), conventional wisdom sees management accounting as providing information for planning and control. This view is grounded in neo-classical economic theory and is based on rationality and equilibrium. Therefore, it has difficulty analyzing the processes of change. Such research in MAC has been focusing on studying MAC as an outcome by using static research methods and less focus has been given to understanding MAC as a process, what it becomes and how. (Burns and Scapens 2000). As such, management accounting change needs to be examined in its specific organizational settings as microlevel analysis is needed to reveal the dynamic processes of change (Nor-Aziah and Scapens, 2007).

Burns and Scapens (2000) have identified three dichotomies that can be useful in analyzing MAC as a process. However, for the purposes of this thesis the first two of them are the most relevant. These are formal versus informal change and revolutionary versus evolutionary change. Firstly, change is revolutionary when it requires a fundamental disruption to existing routines and ways of thinking whereas evolutionary change is incremental and allows routines and ways of thinking remain largely unchallenged. However, they further argue that even revolutionary changes will likely be influenced by pre-existing accounting ways of working and thinking and therefore, the change process will include evolutionary elements. (Burns and Scapens, 2000).

Secondly, formal MAC happens through introduction of new MAS by a powerful individual or group while informal change occurs on the tacit level through for example adaptation to new operating conditions. In order to be successful, formal change may require change in ways of thinking and therefore, often needs to be followed by informal change. However, if informal change lacks behind, the implementation of MAC might fail. Burns and Scapens (2000). Furthermore, Burns and Vaivio (2001) suggest that organizations drift more than they would like to admit and management accounting practices are no different. Change is not always rationally planned and executed and therefore, contains at least some informal elements in addition to the formal (Burns and Vaivio, 2001).

Finally, it needs to be considered whether the change can be seen as successful or unsuccessful. In quantitative studies, accounting change success has often been measured by stage of adoption and by managers perceptions. However, this is problematic as shown by Malmi (1997) where the same accounting change was perceived successful by top managers whereas it was deemed unsuccessful by operating unit. On the other hand, Siti-Nabiha and Scapens (2005) found that the intended formal MAC was only implemented ceremonially whereas the unintended informal MAC initiated by the former change effort was implemented informally. As a result, the intended increase in financial accountability did not take place but operational accountability was increased. As such, the change can be interpreted as successful and unsuccessful simultaneously. (Siti-Nabiha and Scapens, 2005).

2.1.2 How has management accounting change as a process been studied?

During the past two decades, institutional theory, especially old institutional economics (OIE) and new institutional sociology (NIS) informed frameworks and concepts have become dominant in qualitative microlevel studies analyzing and understanding management accounting change as a process (Dillard et al., 2004; Parker, 2012; Alsharari et al., 2015). Old institutional economics (OIE) focuses on understanding the evolutionary process of change as well as organizational routines and their institutionalization (Burns and Scapens, 2000). On the other hand, new institutional sociology (NIS) sees accounting change as a result of external social and technical influences and as such, focuses on how cultural, environmental and technical aspects affect management accounting system choice (Liguori and Stecciolini 2011; Dillard et al., 2004). Therefore, OIE concentrates on accounting change within an individual organization while (NIS) focuses on effects of external institutions (Burns and Scapens, 2000).

Liguori and Steccolini (2011) continue that NIS based MAC literature fails to explain why same practices under same external pressures take different forms in different companies. Furthermore, NIS based literature see new practices as an outcome of external pressures at certain time and does not consider the internal dynamics of organization in the process of MAC (see also Valuckas, 2018). The OIE based literature on the other hand accounts for the internal dynamics but only through institutionalization of rules and routines. Therefore, it assumes that the only differentiating factor between organizations MAC adoption is the pre-existing rules and routines and as such, it does not consider organizational dynamics in other respects filtering the change (Liguori and Steccolini, 2011; Dillard et al. 2004)

Dillard et al. (2004) add that much of the institutional research has been focused on studying accounting practices as outcomes at any given point in time and little attention has been given to the dynamics of change or the role of human agency. As such, research generally focuses on the stability of MAS as well as its ability to manage incremental, evolutionary change. Another limitation is that the role of power, special interests and politics have not been given attention by this research. Also, the decoupling of internal and external operations directs focus on organizational field level and is not applicable in MAS context at organization level. (Dillard et al. 2004)

While some researchers have proposed using for example archetype theory (Liguori and Steccolini, 2011) or bringing in concept of situated rationality (ter Bogt and Scapens, 2019) to overcome the limitations of NIS and OIE based frameworks, others have proposed to use complex combinations of NIS and OIE inspired frameworks as well as Hardy's (1996) power mobilization framework or concepts of power, interests and agency (Nor-Aziah and Scapens 2005; Yazdifar et al., 2008; Dillard et al., 2004; Alsharari, 2015). For example, Dillard et al. (2004) has compiled a framework using NIS theory to account for external pressures and OIE theory for internal processes while using dynamics of structuration theory. Alsharari et al. (2015) continued by modifying Dillard et al., (2004) model through replacing organizational level with OIE based Burns and Scapens (2000) framework and merging with Hardy (1996) power mobilization framework.

However, some have altogether questioned the use of institutional theories in analyzing accounting change. For example, Quattrone and Hopper (2001):

> *"Who can judge when processes making an institution a taken for granted and socially constructed reality are complete? If they are not, then what is an institution? How can one affirm that institutions are socially constructed and*

taken for granted entities and then argue that change is an ongoing process with no outcomes? Is the concept of institution a useful heuristic for explaining change as a process and are categories such as 'environment', 'context', 'institution', presumed to be either inputs or outputs of theories of change, valid if change is not a passage from a given entity to another but is a process? Lastly, and above all, what of the concept of change in itself? Who can state, be they an academic or a manager, whether an institution has changed? How can an institution become something different (something new) from what it was before without being charged with reifying the concept of an institution as a thing?"

In addition to institutional research on management accounting change, qualitative studies have produced a range of unique understandings and contributions of management accounting change as a process (Parker, 2012). One such tradition has started with Innes and Mitchell (1990) defining the factors driving MAC as motivators, catalysts and facilitators, continued by Cobb et al. (1995) who added leaders, momentum for change and barriers, and finalized by Kasurinen (2002) through expanding barriers to frustrators, confusers and delayers. Studies using the model have argued it to take agency into account, to provide a more comprehensive and holistic understanding of processes of change (Valuckas,' 2018; Kasurinen ,2002; Munir et al. 2013) while providing deeper insight into employees reaction to change (Munir et al. 2013).

Despite institutional theory having become the dominant perspective to analyzing management accounting change, taking into consideration the limitations, complexity of multi-institutional models and criticism that institutional theories have received, this study will adopt the Innes to Mitchell (1990) to Kasurinen (2002) model as its primary theoretical framework. However, studies using the model have additionally either used institutional frameworks as additional theoretical lens or drawn from the concepts and findings of institutional MAC research to gain further insight into management accounting change process (Vaivio 1999; Munir et al. 2013; Valuckas 2018). This study applies a similar approach of drawing from concepts and findings of institutional research for additional insights especially in relation to nature of change as well as stability of MAS and resistance to MAC.

2.1.3 Advancing forces of change and internal dynamics

Multiple studies have shown that external market pressures such as increased competition are an important factor in initiating accounting change (Innes and Mitchell, 1990; Cobb et al., 1995; Burns, 2000; Munir et al., 2013) while others emphasize the role of regulatory requirements (Munir et al., 2013; Liguori and Steccolini, 2011). In general, external pressures are important in creating need for accounting change that might not have happened without an external shock (Burns, 2000). Without external changes such as take-over or advances in technology, the existing accounting routines and set ways are unlikely to be reopened and questioned and as such, are resistant to change (Burns and Scapens, 2000).

However, some researchers have emphasized that accounting change is not only the result of external pressures or regulatory changes. For example, van der Steen (2009) argued that it was the lack of external pressures due to not having shareholders that motivated the bank to change its MAS. While Valuckas (2018) notes that previous successful implementation of the accounting practice in another company can motivate the adoption of new management accounting practice and as such, the companies can be seen mimicking successful practices. On the other hand, in line with NIS theorists, Siti-Nabiha and Scapens (2005) argue that organizations can adopt management accounting systems in order to appear rational to the internal and external environment. Therefore, MAC can be interpreted as an attempt to gain legitimacy from the organizations' wider environment (Siti-Nabiha and Scapens 2005; Dillard et al., 2004). This is especially important for government owned companies for which appearing well managed is important for maintaining autonomy and even survival (Siti-Nabiha and Scapens 2005). Finally, accounting change may simply be necessary to preserve the appearance of rationality and control of powerful individuals (Burns and Scapens, 2000).

Although the importance of external pressures, legitimizing, mimicking and regulatory changes are widely accepted as the initiators of MAC, it has been argued that they alone do not sufficiently explain how change has come to take place. Instead, management accounting practices can arise due to extra-organizational influences interlinking with internal circumstances (Vaivio, 1999) as processes of accounting change are likely subject to various organizational pressures and rationales (Scapens and Burns 1993). Therefore, managerial practices such as MAS's are co-determined by the external environment as well as the internal dynamics of organizations (Valuckas, 2018). Siti-Nabiha and Scapens (2005) conclude that complex internal dynamics can shape processes of change and can lead to an outcome that is different from intended.

For example, Liguori and Steccolini (2011) showed that while environmental pressures and regulatory requirements were the initial motivations for the change, they were not enough to lead to revolutionary change on their own. Instead, the interaction of intra-organizational factors played significant role in the change process and its outcome. Especially, the way in which external pressures are filtered by the intraorganizational dynamics and factors is relevant. This was further emphasized by the differing outcomes of MAC of two organizations facing similar environmental pressures. (Liquori and Steccolini, 2011). Meanwhile, Granlund (2001) highlighted that even in the face of financial distress and general acceptance that MAS needs to be changed, the change finally failed to be implemented due to internal factors. Therefore, "External forces of change are variously facilitated, moderated or defeated by internal institutional dynamics" (Parker, 2012).

2.2 Innes and Mitchell (1990) to Kasurinen (2002)

Innes and Mitchell (1990) argue that prior to their study, the process of MAC has received very little attention in research. Through analyzing management accounting change as a process in seven companies, they identified and classified three sets of factors based on their nature and timing in driving MAC. These factors are motivators, facilitators and catalysts. It is through the interaction of these factors that management accounting change can take place. (Innes and Mitchell, 1990)

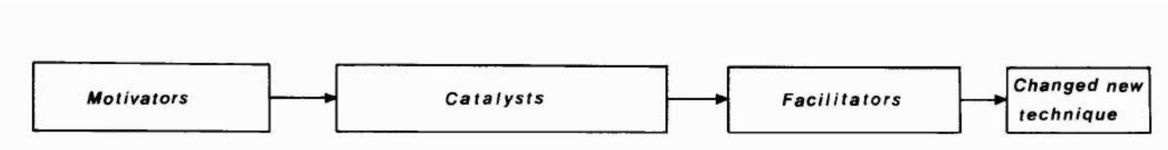

Figure 1. Innes and Mitchell (1990) model.

2.2.1 Motivators

According to Innes and Michell (1990), the first set, the motivators, include the factors that were influencing the MAC more generally. In line with claims that MAC is influenced by external factors, they identified the increased competition in the market and developments in production technology as motivators (Innes and Mitchell, 1990). Cobb et al. (1995) expanded that a mismatch between the environment of the organization and the MAS create a tension that puts pressure for the MAS to change. Therefore, this mismatch, a gap, serves as a motivator (Cobb et al, 1995). The motivators make managers realize need the for change (Munir et al. 2013).

In addition to the external motivators identified by Innes and Mitchell 1990, studies using the model have identified multiple external motivators such as increased competition (Innes and Mitchell, 1990; Cobb et al, 1995; Kasurinen 2002; Munir et al, 2013), product innovations (Cobb et al. 1995), increasing complexity of business environment (Kasurinen, 2002), uncertain economic conditions and regulatory changes (Munir et al. 2013). However, contrary to other studies, Valuckas (2018) found that the MAC was motivated by the relative market stability as the management willingness to try new practices emerged. Meanwhile, the successes of another company in the same field in adopting same practices worked to legitimize the practice and motivated its adoption (Valuckas, 2018).

While external environment and pressures (or lack of them) are shown to motivate MAC, the studies using the model have identified internal motivators to play a crucial role. For example, in addition to product cost structure (Innes and Mitchell, 1990), Cobb et al. (1995) identified internal environment related pressures such as decreasing profitability and information needs such as cost structure and product profitability as motivators. Meanwhile, Kasurinen (2002) highlighted the mature stage of product portfolio and overtly financially oriented control system as influential internal motivators. On the other hand, Vaivio (1999) added that motivators can also be related to need to understand internal operations nature, issues and performance. In other words, the need for increased visibility and understanding of the organization's working can motivate MAC.

2.2.2 Facilitators

The second set of factors are the necessary underlying conditions for the change to take place but are by themselves not enough for the change to take place. They observed adequate accounting staff, computing resources and authority of accounting function as facilitators (Innes and Mitchell, 1990). Similarly, appropriate and adequate resources with regard to human resource and technology were found by Cobb et al (1995) to serve as influential facilitators. The role of adequate systems was also highlighted by Munir et al. (2013) who found that the new information system and automatization of performance measures as well as knowledge how to present measures facilitated the adoption of the new MAS while appropriate technical support also played a role.

On the other hand, Kasurinen (2002) found the pre-existing introduction of BSC as facilitator through having legitimized the concept to some members in the organization. Similarly, Vaivio (1999) suggested that the initial non-financial measurements facilitated the more systematic and comprehensive adoption of non-financial measures. Meanwhile, Munir et al. (2013) emphasize the role of the change leader in setting up the facilitators of change such as setting up a task force as well as hiring like-minded managers and a consultant. Finally, Valuckas (2018), highlighted the role of top management support as an important facilitator. He found that once the top management support for the project stopped, the change effort was also halted and eventually abandoned.

2.2.3 Catalysts

The third set are classified as the incidents that were directly related and occurred in close proximity to the observed changes, the catalysts (Innes and Mitchell, 1990). While motivators alert the management to the need of change, catalysts provide important insight to when the changes will actually take place and what needs to be done to initiate change (Munir et al., 2013).

Their research revealed loss of market share, arrival of new accountant and deteriorating profitability as catalysts of MAC (Innes and Mitchell, 1990). Similarly, Vaivio (1999) suggested that the sudden changes in economic environment and resulting falling profitability and increased competition served as the final catalyst for the MAC. In addition to former, individuals can serve as catalyst as pressure for results from powerful individuals can serve as a catalyst (Cobb et al, 1995).

In similar fashion, Munir et al. (2013) found that the initial catalyst for the management accounting change was the liberalization of financial markets and falling profitability. Profitability was deteriorating duet non-performing loans and constant government interferences and demands lead to rising administrative costs. Liberalization of financial markets resulted in loss of market share as more business-oriented banks entered the market. Furthermore, the government made regulatory changes for which compliance required changes to existing MAS. The final major catalyst was the election of new BOD and president consisting mainly of private sector finance professionals. These factors happened close to the change and were directly related to the change. (Munir et al., 2013)

However, somewhat differently to the mainly financial, regulatory and personnel change related catalysts, Kasurinen (2002) expanded that the knowledge and understanding about the strategic plans that the BSC should be linked that had been gained by the general manager through participation in planning rendered the project possible. The implementation of the BSC was the logical step to increase the role of strategic planning in the organization and therefore, this acquired knowledge and understanding finally catalyzed the project (Kasurinen, 2002).

Innes and Mitchell (1990) argue that it is only through the interaction of all these external and internal factors that change can take place. The facilitators are not enough to result in MAC and the motivators and catalysts only become effective at generating change when sufficient facilitating factors are in place. They continued that although the motivators and catalysts act positively to create change, the change can only materialize when facilitating factors are in place. (Innes and Mitchell, 1990).

2.2.4 Leaders and momentum for change

Cobb et al. (1995) argue that even though the Innes and Mitchell (1990) model is strong on external elements such as the environment, it is weak in showing the process of change that takes place within the organization. Especially, the model ignores the process of MAC as social accomplishment through human agency. Although it can recognize individuals as catalysts, it does not accommodate the perceived dual role of individuals as catalysts and leaders of change and the importance of leaders in overcoming barriers. Finally, they suggest that the very momentum of change, the accumulation of changes and expectation of continuing change itself serve as powerful factor in driving the change. They conclude that even though motivators, catalysts and facilitators may be necessary to create a potential for change, individuals, the leaders, are necessary to overcome the barriers and momentum is required to maintain the speed of change. Therefore, Cobb et al (1995) have revised the model brought forward by Innes and Mitchell (1990):

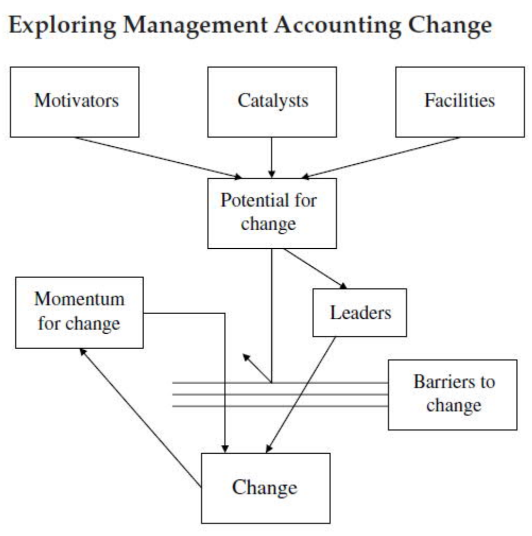

Figure 2. Cobb et al. (1995) revised model

Munir et al. (2013) showed that the president who was a major catalyst for change, also acted as the leader and creator of momentum for change. The president removed long serving executives who were perceived to be potential barriers and replaced them by like-minded people who would end up serving as opinion leaders in the change effort. The president constantly pressed the need for change to the opinion leaders and exchanged ideas with them. The opinion leaders would then communicate these ideas further down the line and contributed towards creating acceptance of the changes in the employees. (Munir et al., 2013)

The dual role of leader and catalyst is further supported by Valuckas (2018). However, he found that the efforts of one leader was not enough to overcome the barriers of change. Hence, he concluded that the framework does not recognize the leaders' importance in promoting and communicating the change until the change is fully implemented. Furthermore, he argues that the leaders act as intermediaries of change. They diffuse the ideas behind the change and the new practice around the organization therefore facilitating the change effort in practice. (Valuckas, 2018)

Despite the perceived importance of leaders in MAC process, studies have not used leadership styles to explain process of management accounting change (Jansen 2011). According to him, leadership styles can be divided into transformational and transactional. Transformational leadership style appeals to socio-emotional needs and aims at motivating employees by communicating values, beliefs and mission on of the company in an interactive style and through involvement. Transactional leadership appeals to physical needs and aims at motivating employees by contingent rewards while constraining choices and actions. Transactional leadership is largely inactive and focuses on management by exception. Although he highlights that appropriate leadership style even in change efforts is somewhat reliant on the needs and expectations of the employees, he finds transformational leadership style to be more effective in especially more radical MAC that deeply challenges the pre-existing ways of doing things. Jansen (2011)

To further support, Liguori and Steccolini (2011) found that the transformational leadership style and personal characteristics of the change leader was integral to the revolutionary changes to be implemented. Involving, discussing and commitment seeking leadership style ensured that personnel understood the need for changes and promoted commitment to the change process. However, transactional and symbolic leadership style was not sufficient for ensuring commitment to changes and as such, only evolutionary and incremental changes followed. (Liguori and Steccolini, 2011). Similarly, Yazdifar et al. (2008) also emphasize the importance of communication, interaction and involvement as key factors in promoting commitment and ownership to the revolutionary MAC.

However, while supporting the importance of leaders, Vaivio (1999) argued that it was the systematic approach and focused use of interactive controls by the new leader that was the key factor that finally brought about the changes in contrast to the earlier unsystematic efforts that had failed. The change leader set up a design team that identified appropriate measures by using techniques such as fish bone chart and finally formed a recurring report. Moreover, these measures would then be systematically followed up in meetings and acted upon resulting in real changes in managerial processes that lead to new forms of accountability and successful, comprehensive MAC. (Vaivio, 1999). To further support, Liguori and Steccolini (2011) found that turning to an uncoordinated way of introducing new systems slowed down the diffusion of new practices in the case company.

Finally, Kasurinen (2002) found that the implementation process significantly halted once the “corporate champion”, the change leader, resigned. Meanwhile, Valuckas (2018) noted that the reassignment of the change leader lead to change effort halting.

2.2.5 Barriers to change

Cobb et al (1995) argue that even together, these factors might not be enough to result in MAC. They highlight that the Innes and Mitchell (1990) model fails to account for barriers factors that can hinder, delay or altogether prevent change. Their findings show that for example attitudes of staff, changes in personnel as well as changing priorities can serve as barriers that prevent change even when facilitators, motivators and catalysts are in place. (Cobb et al., 1995)

However, Kasurinen (2002) argues that even though Cobb et al. (1995) have successfully identified the advancing and hindering forces of change, further categorization of the barriers could make the barriers role in the change process more recognizable and help the organizations in their attempt to avoid them in practice. Therefore, he has proposed the categorization of the barriers as confusers, frustrators and delayers. In addition, he also further streamlined the model by classifying the motivators, facilitators, catalysts, leaders and momentum as the advancing forces and barriers as the hindering forces of change (Kasurinen, 2002).

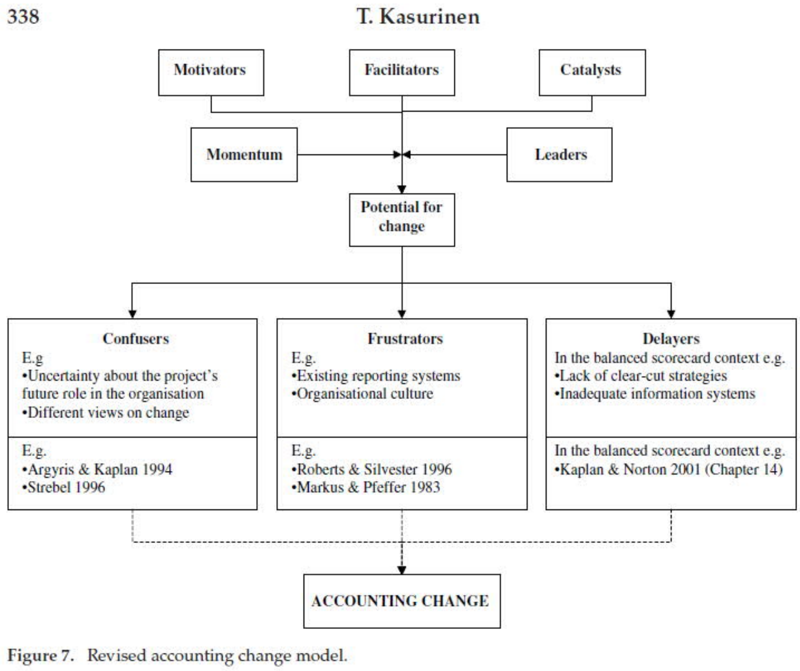

Figure 3. Kasurinen (2002) revised model

In his case study, Kasurinen (2002) found that the accounting change faced uncertain future after the division manager, the leader, left the company. Furthermore, the division management started imposing their strategic views and indicators, at the expense of the business managers operational views, upon the business units and this created uncertainty over the real owner and goals of the change. These uncertainties and differing views create confusion and as such, these barriers are classified as confusers (Kasurinen, 2002). Similarly, Valuckas (2018) argued that the dissolution of the transition team created uncertainty about the future of the projects and as such, was a major confuser.

Munir et al. (2013) found that even though there was no public strong resistance to the PMS and the reasoning for the changes were widely accepted. The branch managers who were affected by the new MAS were confused how the new system would affect their bonuses and promotions. In the previous system promotions and bonuses were based on tenure rather than performance. Additionally, the rapid introduction of many initiatives and lack of communication and training created confusion among employees. Finally, the prior failed change attempts to the old system meant that the employees were not sure how seriously the latest attempt should be taken. (Munir et al., 2013)

The second set of barriers are classified as frustrators (Kasurinen, 2002). This set of barriers consist of the factors such as culture and existing structures that work towards suppressing the change attempt in the organization. For instance, in his case study, the frustrators included the business unit managers' fears that the divisionally designed systems would not meet local requirements as well as the engineering culture that emphasized diagnostic measurement over the division managements' desired strategic measurement. (Kasurinen, 2002). In addition to organizational culture, Valuckas (2018) highlighted that national culture can serve as a frustrator for accounting change.

On the other hand, Munir et al. (2013) found that some of the more senior employees still had faith in the old system and the new system was seen as top management initiative and therefore created frustration. Later, the new PMS system was found to be slow and maintaining it time consuming. This was a major source of frustration for the employees. However, according to Munir et al. (2013), this frustrator later became a catalyst for further change in the MAS revealing the interchangeable nature of the hindering and advancing forces of change in relation to time.

The final set of barriers have been classified as delayers and according Kasurinen (2002), these are often technical and temporary in nature. In his study, he found that the lack of clear-cut strategies to be translated into indicators as well as problems in data gathering due to inadequate information systems were hindering the change process. These barriers resulted in the change process being delayed (Kasurinen, 2002). Meanwhile, Valuckas (2018) expanded that the general understanding of the practice being implemented and multiplicity of goals can also delay the implementation of the practice.

2.2.6 Interplay and interchangeability of the forces

When using the Kasurinen (2002) change model, it is important to recognize that the element of potential for change and barriers identified by research are not further categorization but rather their position in those specific circumstances. For example, Cobb et al. (1995) found falling profitability to be a general motivator for change while Munir et.al (2013) and Vaivio (1999) argued that falling profitability was one of the factors that finally catalyzed the MAC. The reason for different classification is due to the nature of influence and timing of the factor. In Cobb et.al (1995) study the falling profitability raised the awareness for need to change but was not among the final triggers while in Vaivio's (1999) and Munir et al. (2013) studies it was among the final triggers that initiated change.

The second important aspect of the model is the interplay of internal and external factors and their interchangeability in relation to time. As the studies using the model show, management accounting change and its outcome is a result of external forces and internal dynamics interacting during the process. Moreover, the studies also reveal the interchangeability over time of the advancing forces among themselves as well as with the barriers. For example, Munir et.al (2013) found the inadequate systems to be initially a frustrator but as time passed, it was the inadequacy of the system that served as a catalyst for the subsequent MAC.

Finally, the studies using the model highlighted the role that leaders have on the MAC process by taking multiple roles. The leaders were found to serve as catalysts (Cobb et al., 1995; Munir et al., 2013; Valuckas, 2018), putting facilitators in place (Munir et al., 2013) as well as creating and maintaining momentum for change (Cobb et al., 1995; Vaivio, 1999; Kasurinen, 2002; Munir et al., 2013; Valuckas 2018). The importance of the leader was further highlighted by the change getting halted once the leader was removed from the change (Kasurinen, 2002; Valuckas, 2018).

Although the Kasurinen (2002) model has successfully expanded the barriers factor and multiple potential barriers have been identified by Kasurinen (2002) as well as later studies using the model, the sources of resistance and stability that contribute to barriers remain largely unexplored by these studies. Therefore, the next chapter will present the sources of resistance stability found in the MAC literature.

2.3 Management accounting stability and resistance to change

Resistance to MAC and stability of MAS's is widely known but poorly understood and only limited amount of studies have analyzed this further (Granlund, 2001), and only few attempts have been made to explain the dynamics that promote inertia in management accounting change (van der Steen, 2009). Granlund (2001), continues that number of studies using statistical methods have identified factors that contribute to stability. However, while factors that generally contribute stability can potentially be identified, the problem remains that the number of factors is in inevitably unlimited and in the end fail to account for complexity of different incentives and aspirations of actors in management accounting change. (Granlund, 2001).

However, stability and change are not mutually exclusive processes but can instead occur simultaneously. Moreover, when encountering environmental changes, stability of MAS can be essential for understanding and making sense of organizational activity. (Burns and scapens, 2000). In addition, it is also argued that the stability of MAS can be essential for avoiding disruptions in operational performance (Nor-Aziah and Scapens, 2007; Siti-Nabiha and Scapens, 2005). Furthermore, through their research Siti-Nabiha and Scapens (2005) expand that in order to maintain stability of values and norms within the subunit as well as the relationship with parent company, ceremonial change of new accounting systems was necessary. Finally, this stability then provided the conditions for subsequent instrumental MAC. However, the resulting MAC lacked some of the intended features and effects of the initial change attempt and instead mirrored the pre-existing values and norms (Siti-Nabiha and Scapens, 2005).

In line with Burns and Scapens (2000) argument, Lukka (2007) suggests that stability and change can co-exist through loose coupling. However, whereas Burns and Scapnes (2000) suggest that stability is a result of the informal procedures, the routines, providing stability when the formal rules are changed, Lukka (2007) argues that flexibility in routines can allow the rules to remain unchanged. Similarly, Nor-Aziah and Scapens (2007) continue that loose coupling creates a buffer between formal structures and daily activities from changes in external environment. Therefore, allowing the formal MAS to change while maintaining the stability of the actual daily activities of the organization (Nor-Aziah and Scapens, 2007). However, while Lukka (2007) sees loose coupling as solution to work around problematic rules, Nor-Aziah and Scapens (2007) perceive it as a process and outcome of resistance to change.

In similar fashion to Nor-Aziah and Scapens (2007), Granlund (2001) found that the accumulation of resistance to the MAC lead to momentum of stability. However, instead of leading to loose coupling, his study revealed that as the economic, institutional and human factors driving stability gain momentum and start dominating the forces of change, the cumulative effect of inertia can reach a point where change effort is abandoned. In addition to suggesting change and stability to be counterforces as well as existence of momentum for stability, Granlund (2001) study shows there can also be leader of stability. In his study, a senior accountant was able to convince other colleagues as well as superiors that the prosed change was undesirable and unnecessary. Hence, his role can be described as leader of stability.

The following three chapters will present the literature findings on resistance to management accounting change.

2.3.1 Taken for granted assumptions, “the way things should be done” and “the way things are done”

Burns and Scapens (2000) view management accounting systems as a set of rules and routines. From this basis, they have developed a framework to study management accounting change. They view management accounting as routine organizational practice that has potentially come to reflect and reproduce the “taken for granted” ways of thinking and acting in a specific organization. The central idea to their framework is that these taken for granted ways of thinking are embedded and reproduced in the accounting rules, “the way things should be done”, and routines, “the way things are actually done”. (Burns and Scapens, 2000).

Although Burns and Scapens (2000) framework is intended for exploring and explaining management accounting change, they accept that management accounting routines and the taken for granted assumptions are sources of stability. The inherent stability of routines and difficulty of changing the taken for granted assumptions has since been accepted by multiple studies using Burns and Scapens (2000) framework, its derivatives and concepts (Quinn, 2014; Busco et al., 2006; Granlund, 2011; Lukka, 2007; van der Steen, 2011; Nor-Aziah and Scapens, 2007; Siti-Nabiha and Scapens, 2005). According to Quinn (2014), some accounting routines can be stable to the extent that they can remain essentially unchanged for over a century. “People fundamentally resist change because they feel comfortable with routines, which in turn enhance the feeling of ontological security” (Granlund, 2001). As a result of introduction of new rules that are incompatible with existing rules and routines, people are inclined to retain or revert to existing behavior to maintain ontological security (van der Steen, 2009).

Burns (2000) argues that accounting change where the new ways of thinking are not congruent the existing ones, is likely to meet resistance. Burns and Scapens (2000) expand that the resistance to MAC resulted from the new accounting-based rules and routines not being congruent with the pre-existing dominant rules, routines and ways of thinking. Similarly, accounting change that is imposed on the managers and challenges the prevailing way of thinking and doing and is therefore resisted and finally, can lead to the old routines persisting (Nor-Aziah and Scapens, 2007).

Any MAC taking place will likely be influenced by existing routines and taken for granted assumptions (Burns and Scapens, 2000). Therefore, the new emerging MAS might not be optimal based on efficiency criteria but is likely to present a satisfactory compromise solution and attempts to introduce revolutionary change is likely to follow evolutionary and path dependent process (Burns and Scapens, 2000). However, Siti-Nabiha and Scapens (2005) argue that such evolutionary compromising change can lead to ceremonial or symbolic changes that serve legitimizing purposes rather than having instrumental effect. Only ceremonially implemented accounting systems can be viewed to be decoupled from actual daily activities (Lukka 2007; Siti-Nabiha and Scapens, 2005). Burns (2000) further emphasizes that such decoupled, mechanical accounting routines and practices that have little managerial and operational implications are relatively easy to achieve but due to symbolic nature, do not have desired impact and implications. As Valuckas (2018) found, the old budgeting routines were not changed during the change process and prevailed under a new name, forecasting. Such symbolic changes made into the MAS may not be enough to change the sticky routines (Valuckas, 2018).

While researchers have mainly emphasized existing accounting and other organizational routines as the hindering force of change, Van der Steen (2009) identified a stability routine which manifested itself through downplaying of the formal rule changes as the objects of the changes had opposing view on the need for change. The employees had a strong believe that the financial performance was satisfactory and disregarded, questioned and downplayed the opposing arguments presented by consultants and managers. He further argues that this questioning of differing views on performance had become a standard practice and coping mechanism within the organization and therefore, a stability routine. (van der Steen, 2009)

Organizations can be seen as mini-societies that have cultures and subcultures (Kasurinen, 2002). Busco and Scapens (2011) define organizational culture as socially constructed and validated pattern of shared assumptions which have been developed by a specific group of individuals. Thus, organizational culture is the shared taken for granted assumptions, values and beliefs of an organization (Busco and Scapens, 2011). Attempts to implement management accounting change can be frustrated by cultural infrastructure of the organization (Kasurinen, 2002). In order for management accounting change to take place, the existing incompatible culture needs to be unlearned (Busco and Scapens, 2011). However, people are likely to resist unlearning as it is highly uncomfortable and produces anxiety. Therefore, cultural changes are likely to be met with resistance. (Busco and Scapens, 2011).

Van der Steen (2009) found that the existing organizational culture did not emphasize accountability and as such, the introductions of new accounting rules intended to promote accountability were rejected by the employees. The organization had a culture of not confronting others with bad performance as it was commonly seen as an intrusion onto personal space and denial of their valuable position. Therefore, the new management accounting and performance measurement system promoting accountability was largely ignored and branded insignificant. (Van der Steen, 2009). Formal management accounting change that challenges the organizations culture profoundly can lead to pre-existing beliefs and values prevailing and decoupling of management accounting practices from daily managerial activities (Wahyudi, 2009).

While organizational cultures can cause resistance and hinder accounting change, also the wider societal culture needs to be considered. For example, Valuckas (2018) found that the wider societal culture in the Baltic region was not suitable for the planned MAC as the required level of autonomy was not seen feasible at the time due to the level of maturity of the market and society. On the other hand, in cultures where hierarchies are high and questioning of the superiors is not common practice, formal and overt resistance might not be observed but this does not mean that there is no resistance to change as instead, resistance might still exist as informal resistance (Munir et al. 2013).

In addition to resistance rising from organizational culture and routines, the need for accounting change can be questioned due to perceived state of the organization and its systems. Liguori and Steccolini (2011) argued that resistance was stemming from managers being content with the current systems and therefore could not see the reason to change. The rationales for implementing the new accounting tools and the tools themselves were not understood (Liguori and Steccolini, 2011). Similarly, Lukka (2007) showed that the subunit felt that their systems are serving their needs and are superior to the systems that were to be implemented and as such, did not see the need for change. Meanwhile, Kasurinen (2002) highlighted that the current profitability and performance of the company was good and therefore, change was not seen necessary by the employees. Finally, Van der Steen (2008) argues that high market share and profit margins had led to complacency. There was a shared believe that the performance of the company was optimal. This believe was so strong that when new MAS showed contradicting results, its results were rejected (Van der Steen, 2009).

Finally, Burns and Scapens (2000) conclude that the more widely the taken for granted ways are accepted, the more likely there is going to be resistance to change.

2.3.2 Systems adequacy and lack of capabilities

Burns and Scapens (2000) suggest that accounting change resistance can be due to lack of capability and inability to implement new systems. Liguori and Steccolini (2011) continue that when managers lack understanding of the accounting systems being put in place, they are likely to not see their benefits and as such, lack commitment to change and fail to use the implemented systems. Meanwhile, Siti-Nabiha and Scapens (2005) found that the operational managers lacked financial skills and prior experience of designing indicators and therefore had difficulty in translating their activities into performance measures. Moreover, there was a feeling that the financial indicators could not reflect the complexity of their roles (Siti-Nabiha and Scapens. 2005). However, resistance can also originate from managers viewing the accountants lacking sufficient knowledge over operations to incorporate that in the financial targets (Nor-Aziah and Scapens, 2007).

Lack of capability and understanding can result in middle management serving as a buffer blocking the intended change from having desired impact on their subordinates resulting in mainly symbolic accounting change (Burns, 2000). Liguori and Steccolini (2011) on the other hand see concentration of power and technical abilities to only to a specialized work group such finance department to work as a filter for environmental disturbance from initiating MAC in other parts of the organization, therefore barring the MAC. As such, Liguori and Steccolini (2011) suggest that diffused technical accounting capabilities help accommodate radical MAC whereas concentrated capabilities are likely to hinder change.

Sacpens and Roberts (1993) argue that resistance can also rise from fear that centrally designed, distant MAS does not meet the local needs of units. Distant systems promote rational and abstract thinking for managers concerned with general conditions and trends whereas local systems focus on specific conditions. Centrally designed common systems embrace the idea of commonality to increase comparability and control over multiple units. However, commonality is not important for local managers who desire systems designed to their individual needs. (Scapens and Roberts ,1993). To further support, Kasurinen (2002) also found that there were fears that the system designed at divisional level would not meet the local requirements. Yazdifar et al. (2008) continue that when the imposed reporting does not meet the requirements of the organization, the managers rely on other sources of information and therefore the formal reporting becomes decoupled from actual working activities.

In some cases, the appropriateness of the MAS being implemented can be also questioned. For example, in Granlund (2001) study the operational managers questioned the suitability of ABC due to the complexity caused by large amount of products and joint costs as well internal cross selling while senior accounting described such allocations as penny splitting. Furthermore, the inadequacy of the accounting system may lead to only symbolic accounting change that serves the purpose of legitimizing rather than having any managerial and operational implications (Yazdifar et al., 2008). Meanwhile, Granlund (2001) highlights that prior negative experiences with the system being implemented can result in employees being predisposed to rejecting the system and therefore resisting its implementation. However, prior negative experiences with change and current systems can also make employees more accepting of future change and therefore, limit resistance (Yazdifar et al. 2008).

Granlund (2001) also raised the issue that management accounting personnel's bean counting orientation can lead to inertia. Furthermore, he suggests that the educational background and diligence required in financial accounting profession might make accountants more wary of changes to MAS's in general. Similarly, Nor-Aziah and Scapens (2007) emphasize that the accountants were not able to change their role from bookkeeping orientation to financial advisor role that was intended. The accountants' daily routines emphasize timely payments and routine reports instead of financial advisor. Moreover, their lack of operational experience also contributed to their lack of legitimacy in the eyes of operational managers and therefore hindered their capability to act as change agents. Nor-Aziah and Scapens, 2007). On the other hand, Siti-Nabiha and Scapens (2005) argue that management accountants lacked stature and influence which is typical in production-oriented organization and were excluded from operative matters by production managers. Similarly, Scapens and Roberts (1993) found that the accountants were viewed to lack stature and understanding of the differing requirements of the units and therefore their role in implementing the change gave rise to resentment.

2.3.3 Power, special interests and conflicting rationales

Accounting and control systems collect and manipulate information used in decision making, direct the performance of individuals and outcomes of organizational processes. They initiate action as well as are used to legitimize group and individual actions. As such, accounting and control systems have impact on resource allocation, career progression and organizational structure. Therefore, they are tightly connected to the power distribution and use of power within the organization. (Kasurinen, 2002)

Burns and Scapens (2000) highlight the importance of use of power in MAC. Key individuals that have sufficient power over resources, may be able to resist or subvert the change process (Burns and Scapens, 2000). Yazdifar et al. (2008) continue that powerful individuals can withhold accounting information for their own benefit and use their power to build empires. Granlund (2001) concludes that some individuals just have more power to influence others and through skillful employment of this power, they can resist accounting change. For example, using Hardy (1996) power model, Nor-Aziah and Scapens (2007) suggested that the accountants implementing the change lacked power over decision making and meaning that are important for implementing management accounting change. Meanwhile, it was also in the interest of operational managers to maintain existing ways of doing. Therefore, they used their power over knowledge to resist the MAC (Nor-Aziah and Scapens, 2007). On the other hand, Wahyudi (2009) argues that when the use of power over resources is perceived unfair and mainly used to establish dominance, it can lead to conflicts, erosion of trust and emergence of resistance.

Power struggle between other organizational departments and accounting in MAC has been documented in multiple studies where focus is on increasing financial accountability through management accounting change. Scapens and Roberts (1993) found that accounting change was viewed as central interference in the subunit operations. The unit managers felt that the division accountants driving the change were in fact extending divisional control over the units by creating a ‘technology of surveillance’ through which the division would gain more control over subunit operations and as such, this created a fear that the units would lose autonomy. Furthermore, the different professional groups were unable to find common language which increased the us versus them attitude. (Scapens and Roberts, 1993)

Similarly, Nor-Aziah and Scapens (2007) highlighted the tensions between accountants and operational managers as well as lack of common technical language as a major cause for the failure of the MAC promoting financial accountability. Introduction of accountants was seen as an imposition and an attempt to expand accountants empire instead of aiding them in operations. Furthermore, they argue that due to their traditional operational focus, the managers prioritized meeting the operational targets instead of the often conflicting cost targets. Therefore, the operations managers viewed the increased financial accountability and accountants as a threat to their autonomy and operative performance. (Nor-Aziah and Scapens, 2007). However, on the contrary, Granlund (2001) suggests that the failure to find common ground and the power struggle might not always be between different professional groups or departments. Instead, he highlighted that such power struggle can occur within the accounting personnel themselves.

Merchant and van der Stede (2017) argue that managers should be held accountable for only what they can control. Nor-Aziah and Scapens (2007) highlighted that implementation of inadequate top-down budgets created feeling that the budget was imposed on them. As a result, the managers did not feel accountable for the budgets and lacked commitment to achieve them (Nor Aziah and Scapens, 2007). Moreover, being held accountable for impossible targets does not motivate better performance (van der Steen, 2009). In further support, Scapens and Roberts (1993) found that decentralization to divisional structure was ambiguous as divisional managers were responsible for the profitability while many activities were still controlled centrally. However, the accounting systems such as cost and profit centers which were aligned to the formal structure and as such, did not follow decision making patterns. Therefore, the managers did not have full power over their performance although they were held accountable for it. Being held accountable for uncontrollable factors gave rise to resentment and resistance to the change. (Scapens and Roberts, 1993).

Busco et al (2006) suggest that trust is central to MAC. In order to have successful MAS implementation, there needs to be "trust for accounting" by which they mean the trust in the management accounting system itself. On the other hand, MAS can also be the source of trust. They argue that introduction of MAS's can participate in creating trust for change trough providing the tools and context to understand and deal with wider organizational change. They labelled this as "accounting for trust". However, if there is no "trust for accounting" and "accounting for trust" is attempted, the accounting can become marginalized and even the focus of the resistance to change. (Busco et al., 2006)

Nor-Aziah and Scapens (2007) also highlighted lack of trust as a central hindering force to management accounting change. They argue that lack of trust between the accountants imposing the change and operational managers contributed to the abandonment of the budgets and increased financial accountability. The MAC and increased control was often perceived unfair and as questioning of their professional judgement and as such, made managers feel that they were not trusted. On the other hand, the operational managers did not trust accountants competencies and did not accept imposed MAS, the budgets, due to fearing that such acceptance would lead to being accountable to them. Not being trusted resulted in not trusting the accountants. (Nor-Aziah and Scapens, 2007). Similarly, Johansson and Baldvinsdottir (2003) argue that management accounting change is only possible when there is trust in the management accounting systems and their use. Immediate rejection of accounting figures is likely when there is a suspicion that they will be used against. Furthermore, they highlight the importance of trust carriers as trust in the system can be gained through the trust in individuals implementing the change (Johansson and Baldvinsdottir, 2003). Finally, resistance to management change can be eased if there is trust in the expertise of the individuals implementing the change (Busco et al, 2006).

While attempts to change MAS's are often legitimized and justified through powerful arguments of efficiency and economic gains, any resistance to the change can seem irrational. However, when viewed from another angle, such resistance can instead appear rational. For example, the senior accountant resisting the change was concerned losing his influence and control, but he was also concerned that the new practice would not be suitable to the company as well as that it would increase workload for his department without subsequent benefit. From this point of view, the resistance can be viewed as rational. (Granlund, 2001). Similarly, Scapens and Roberts (1993) argued that resistance encountered in the MAC was viewed irrational by the project team implementing the change. However, the resistance was grounded in real concerns over suitability of the system. These concerns were strengthened by the fact that managers would be held accountable for their performance based on outputs of this system.

More generally, management accounting change is viewed differently by different employee groups. For top management, change is often an opportunity whereas for employees and middle management change is not desirable nor welcome (Kasurinen, 2002). For example, performance measurement systems are linked to incentives and as such, changes to them will have effect on how bonuses and promotions are allocated (Munir et al., 2013). On the other hand, resistance to management accounting can also arise from increased visibility that threatens the slack of the organization (Malmi, 1997). Finally, new management accounting systems can also reveal some operations to be unprofitable and some jobs to be unnecessary and therefore, lead to relocations and redundancies (van der Steen, 2009; Munir et al., 2013; Cobb et al., 1995). Therefore, as employees roles are likely to be altered as a result of the change, it is unreasonable to expect that they would buy into the changes unless managers adequately explain the changes and gain acceptance to them from the employees (Kasurinen, 2002).

2.4 Revolutionary management accounting change

Revolutionary MAC that profoundly challenges the existing routines and institutions is more likely to encounter resistance than evolutionary change that is consistent with existing routines and institutions (Burns and Scapens, 2000). Multiple studies have shown that revolutionary MAC is difficult to achieve (Granlund, 2001; Nor-Aziah and Scapens; Siti-Nabiha and Scapens; Kasurinen, 2002; Valuckas 2018; Scapens and Roberts; 1993). However, while difficult to achieve, a strand of studies have shown that revolutionary MAC does take place (Vaivio 1999; Busco and Scapens, 2011; Yazdifar et al, 2008; Liguori and Steccolini, 2011). Therefore, this chapter will go over the findings of what is required for revolutionary accounting change to take place.

Burns and Scapens (2000) argue that managing MAC requires a thorough understanding the organizational contexts especially with regard to its routines and taken for granted assumptions. Successful implementation can be achieved by understanding the ways of thinking and doing things (Yazdifar et al., 2008). Furthermore, it requires questioning of the underlying assumptions behind day to day activities (Burns and Scapens, 2000). Yazdifar et al. (2008) continue that constantly highlighting the need and benefits of the change, the taken for granted ways of working and are increasingly questioned and new ways and systems can be implemented instead. However, while questioning the underlying assumptions is important for radical MAC, Busco and Scapens (2011) suggest that MAS's can be used as a tool in revolutionary organizational change and the means by which the old culture is questioned and new culture is implemented. They argue that MAS's are not mere objective and value neutral tools but are rather embedded deep in the taken for granted assumptions, the culture, of the organization. As such, changes in MAS's can be used to give direction to a wider change in organization's culture (Busco and Scapens, 2011).

Furthermore, in order to overcome resistance to revolutionary MAC, Busco and Scapens (2011) suggest that the old culture and taken for granted assumption have to be unfrozen. They bring forward three factors that are essential for unfreezing the old culture: "the mechanisms of disconfirmation, the creation of survival anxiety and creation of psychological safety to overcome learning anxiety". They show that the constant waves of communication, training and implementation of new techniques lead to disconfirming and questioning the taken for granted assumptions, created a fear for loss of employment, stature and career progression while promoting new values lead to unlearning the old ways and provided a path to psychological safety through accepting the new ways. This unfreezing of the organization paves the path to successful revolutionary change to a culture of performance measurement and accountability. (Busco and Scapens, 2011)

Similarly, Yazdifar et al. (2008) argue that while ensuring understanding and highlighting importance of the changes are important, there needs to be a threat to job security in order to drive the radical changes through in a democratic yet autocratic way. In support, van der Steen (2009) noted that the process of behavioral change did not take place by introduction of accounting rules, MAS, alone and this was at least partly due to not "unfreezing" the existing routines, the ways of working, behaving and thinking. To further support, Yazdifar et al. (2008) found that where the old ways were not taken for granted but rather symbolic and decoupled they did not have to be unfrozen in order to facilitate MAC. Rather interestingly, while van der Steen (2009) and Granlund (2001) argued that a threat to ontological security can give rise to resistance, Yazdifar et al. (2008) and Busco & Scapens (2011) highlighted that this very threat to ontological security is needed in achieving revolutionary accounting change.

Liguori and Steccolini (2011) argue that concentrated power and dispersed capabilities are necessary, while interests and value commitment are also fundamental for ensuring successful radical MAC. Busco and Scapens (2011) stress the importance of training as means of diffusing knowledge, information and skills. Liguori and Steccolini (2011) continue that communication through training and use of informal channels promote understanding of the new systems and develop technical capabilities to use the systems and increase commitment to change. Furthermore, showing employees how the information of the system can be used and providing them with sufficient training encourages them to take ownership of the change (Yazdifar et al., 2008). Busco and Scapen (2011) add that involvement in implementation of new systems and requiring meeting targets with them is a powerful way to show the importance of the new system and culture to the employees. When employees recognize the benefits of the new system, they become much more amenable to the changes (Munir et al. 2013).

Meanwhile, Burns (2000) highlighted the importance of politics and power mobilization in facilitating accounting change. He showed that use of power over resources, meaning and decision making, change is likely to happen and at least lead to establishment of new mechanical routines. However, he continues that the application of power has to be continuous as a break down in application is likely to result in abandonment of the change when the local power over system, the set ways of thinking and doing are strongly rooted. Yazfidar et al. (2008) continue that exercising power over resources, decision-making and meaning can be used to legitimize and rationalize MAC to make it appear acceptable and desirable.

In addition, many authors have highlighted the importance of leaders in undertaking revolutionary MAC efforts (Cobb et al., 1995; Vaivio, 1999; Kasurinen, 2002; Liguori and Steccolini, 2011; Munir et al, 2013; Valuckas, 2018; Jansen, 2011). Furthermore, it has been suggested that transformational leadership style is more effective in MAC efforts (Jansen, 2011; Liguori and Steccolini, 2011) and systematic and coordinated approach should be applied to successfully implement revolutionary MAC (Vaivio, 1999; Liguori and Steccolini, 2011). Therefore, organizations preparing for revolutionary MAC should be prepared to invest in adequate leader of change (Munir et al., 2013). However, the change leader is not always part of the top management and as such, Granlund (2001) highlights the importance of top management support as he found that lack of it can contribute greatly to the eventual failure of implementation.

Finally, Kasurinen (2002) suggests that analyzing the influencing forces of change using the revised Kasurinen (2002) model at early stages of the change project could help organizations to circumvent barriers in practice and increase likelihood of successful revolutionary MAC.

3 Methodology

The field research is conducted as a qualitative single case study. The following chapter will discuss the methodology and pitfalls of qualitative case studies and explains why this method has been adopted.

3.1 Research method

Case studies can be classified as descriptive, illustrative, experimental, exploratory and explanatory (Scapens, 1990). Descriptive case studies aim at providing a description of accounting in practice. Illustrative case studies aim at illustrating new or innovative practices developed by a company or companies. In experimental case studies, the researches test a practice or procedure that they have developed in the case company. Exploratory case studies are preliminary investigations where the researcher attempts to explore reasons for particular accounting practices in order to generate ideas and hypotheses for later empirical testing. Finally, explanatory case studies try to explain the reasons for accounting practices by focusing on a specific case using theory to explain the specific instead of producing generalization. (Scapens, 1990)

When considering the research design, the first key decision for the researcher is to what extent prior theory should influence the research question and data collection (Vaivio, 2008). This consideration matters as at one extreme, the text could be biased towards the theory while at the other extreme it could be biased towards the field evidence (Ahrens and Dent, 1998). In any case, every researcher is inevitably informed by their past experiences and previous research but in order to make the research meaningful for others, the researcher should provide as comprehensive account of the theory that shapes the case study (Scapens, 1990). In addition, selecting clear theoretical orientation and conceptualization is needed to filter the research evidence and provide guidance to empirical observation (Vaivio, 2008). Moreover, Ahrens and Dent (1998) argue that field evidence without theory is 'boring'.

However, while comprehensive theoretical framework is required, an overtly strong adherence to prior research and constructs may lead to suffocating empirical insights (Vaivio, 2008). Therefore, the researcher should not ignore emerging informal evidence as that could indicate new issues that should be examined and as the case move forward, additional theory may also need to be introduced and the researcher should be flexible for such developments (Scapens, 1990). However, Vaivio (2008) reminds that comprehensive theory on its own is not enough as ultimately the empirical findings need to reconnect to the theoretical starting point or otherwise its conclusions risk to be rather myopic.

Second key issue is the depth versus breadth (Vaivio, 2008). Does the studied phenomenon call for a single case study to explore to examine the detailed context revealing how the organizational processes, tension and competing interests are influencing the management accounting, or does it call for multiple case study to provide a less detailed analysis but offering comparability revealing similarities and differences in the studied phenomenon (Vaivio, 2008). Small sample case studies in management accounting have potential to produce rich accounts which can be especially useful for analyzing conflicts that arise in organizational setting as well as their underlying tensions (Ahrens and Dent, 1998). As such, they can provide a deeper understanding into the studied phenomenon than large sample field research (Vaivio, 2008; Ahrens and Dent, 1998).

However, this brings about the question of generalizability. Qualitative researchers are prone to making statistical over-generalizations over their findings (Vaivio, 2008). Statistical generalization is only possible through large samples of a given population and as such, single case study is inevitably too small as a sample and therefore making statistical generalizations is difficult (Scapens, 1990). On the other hand, case studies are useful in developing theoretical hypothesis that can be statistically tested later or can be used as a study method through which theories are used to explain the observations. Conducting such research can reveal theories that provide convincing observations and should retained or reveal theories that do not and should be modified or even rejected. Therefore, case studies require looking at above described 'theoretical generalization' rather than 'statistical generalization'. (Scapens, 1990; Vaivio, 2008).

As this thesis aims to study MAC as process and focus on discovering resistance to MAC as well stability of MAS, the most appropriate method for the study is the single case study that has both descriptive and explanatory elements. Through this method, the study has the potential to produce a rich and deep account of tensions and conflicts that arise from MAC and application of the MAS. In addition, the study applies the Kasurinen, (2002) change model and attempts to use it to produce convincing observations and as such, aims at testing the theory with regard to its applicability in the case setting.

3.2 Reliability and Validity

Issues of validity and reliability cannot be avoided in single case studies (McKinnon, 1998). According to her, validity refers to the question whether the researcher is in fact studying the phenomenon they are claiming to be studying. The validity of the research is decreased if the research is designed or conducted in a way that the researcher ends up studying more or less than the phenomenon they originally set out to study. On the other hand, reliability is related to whether the empirical data collected in the case can be relied on by the researcher. The reliability of the research could be affected negatively if the researcher fails to check for consistency of the respondents' answers in order to avoid 'accidental circumstances' arising from respondents' lack of concern or care. (McKinnon, 1988).

McKinnon (1988) has identified four threats to reliability and validity in qualitative research. The first threat is observer caused effects which refer to the reactive effects that the presence of researcher on the site could have. It is possible that the participants of the study alter their behavior resulting in the researcher not observing the natural setting. On the other hand, observer bias is related to the selective perception and interpretation of the researcher. As every individual including researchers have their unique pre-existing biases shaped by their background, political views, culture, etc., the observer bias cannot be separated from the individual and is present at all stages of the research. In addition, data access limitations need to be considered as well. First, the researcher spends a limited time at the site and cannot observe what happened before nor what happens after while the period itself could present abnormally saturated with the studied phenomenon. Secondly, the research hosts might limit access to data, people, events or restrict mobility leading to the researcher studying less than the complete phenomenon. Finally, the complexities and limitations of human mind pose a threat to reliability and validity as the statements that the subjects make might not be taken at face value. Firstly, the subject may consciously attempt to deceive the researcher in order to appear in better light. Secondly, the subject may attempt to present the events honestly but may however forget things, have missed events or report through their own biases shaped by their perceptions and opinions. (McKinnon, 1988)

Issues of reliability and validity are reduced in relation to the amount of time the researcher spends in the organization (Vaivio, 2008). Mackinnon (1988) argues that firstly, it reduces observer bias as the researcher can concentrate on getting to know the organization and less pressure is on developing hypothesis and conclusions which if made too early with too little data can lead to 'interpretation gaps'. Secondly, it can effectively overcome observer caused effects as the longer the researcher spends at the site, the less likely the subjects are able to behave different from usual. Finally, time spent in the field increases possibilities to access more data and events and therefore reduces data access limitations (McKinnon, 1988). However, researcher conducting a qualitative research must maintain appropriate distance from the studied context in order to avoid "going native" (Vaivio, 2008). Hence, become emotionally and psychologically too involved in the organization (McKinnon, 1998)

Issues of reliability and validity can also be tackled through multiple methods and observations (McKinnon, 1998). While extensive interviews are the primary source of data, they should not be solely relied on (Vaivio, 2008). Using multiple methods and observations can compensate for limited time on the site as well as help tackle all of the four threats to reliability and validity through repeated observations of the phenomenon to rule out accidental circumstances and verify existence of the phenomenon (McKinnon, 1988). Especially, using multiple sources of data such as memos, reports, manuals and even participant observation in addition to interviews is especially allows triangulation of data that enhances the validity of the observations (Vaivio, 2008). Triangulation of data is achieved through assessing the validity of evidence by comparing it to evidence gathered from other sources (Scapens, 1990).

Finally, McKinnon (1988) states that social behavior while in the field is important for reliability and validity of the research as becoming accepted as non-threatening and taken for granted part of the setting can unlock many doors to data reducing access limitation. In order to do so, the independent nature of the study needs to be communicated to the interviewees to avoid being perceived as 'management spy' (Vaivio, 2008). Additionally, by being genuinely interactive and giving the researcher can gain the confidence, trust and respect of the interviewees (McKinnon, 1988). However, the researcher must avoid expressing their opinions or otherwise the research may become politized (Vaivio, 2008). Moreover, taking sides can also lead to alienating the one side or another and lead to being perceived untrustworthy and unneutral McKinnon (1988). Finally, the case organization or subjects may require confidentiality in order to gain access to data and it's is important that this confidentiality is respected to maintain good relations with the subjects of the study (Scapens 1990). In addition to data limitation, appropriate and good behavior is effective for tackling observer caused effects and complexities of human mind effects (McKinnon, 1988)

3.3 Research material

The case company was selected as it has gone through a major structural and management accounting change from 2016 to 2019. Additionally, the researcher has worked in the company for multiple years and was granted good access to interviewees as well as any internal documents and reports.

The case study has been conducted through semi-structured interviews of six interviewees that hold or have held central positions in the company during the period studied. As the study is focusing on changes in MAS and reports produced by it that are used primarily by the management of the company, the interviewees consist of personnel who hold central positions in the company. Therefore, the interviewees consist of former CEO, current CEO, current CFO, Head of global operations, and two business line/unit managers.

The interviewees received the topic and description of the thesis via e-mail prior to the interview to allow recollection of events that have happened during the time of the changes. However, the research questions and description of exact focus of the study were not sent beforehand in order avoid pre-determined answers and allow genuine reaction to the questions. The interviews were conducted either face-to-face or through teams and were recorded. In addition to interviews, the researcher has used multiple sources of data such as reports produced by the MAS, annual reports, press releases, board materials and other internal documents in order to achieve triangulation of evidence and increase validity and reliability of the thesis (Vaivio, 2008; Scapens 1990).

The researcher has been working in the company for over four years and has been involved in designing the MAS as well as been responsible for producing reports in that time frame. Due to the considerable time and position in the company, the researcher has good access to data as well as interviewees reducing data access limitations. In addition, the researcher has been working with the interviewees on almost daily basis which in turn reduces the likelihood that they would act differently to normal reducing the observer-caused effects. Finally, the likelihood that the interviewees could deceive the researcher and the effect of forgetting important events are greatly reduced through the researcher's familiarity with the organization, the interviewees and the phenomenon.

However, while the researchers role is somewhat similar to 'participant observant' (McKinnon, 1988) and the research gains many of the benefits to reliability and validity that the role can provide, there are many important differences caused by being directly employed by the company. Firstly, as the researcher has held a position in the company, he has inevitably formed certain biases and opinions of events prior to the research. Secondly, there is the danger that being knowledgeable of the events and phenomenon prior to the study could lead the researcher to unconsciously follow a pre-determined path and not be sensitive to contradictory evidence or even discard such evidence as it arises. Finally, the researcher is inevitably psychologically and emotionally involved with the organization and the appropriate distance from the phenomenon and organization is difficult to achieve. Therefore, while the time spent in the organization and involvement in the events increases the validity and reliability of evidence, it also does the opposite as the observer bias is greatly increased.

In order to increase the reliability and validity, the researcher has kept these threats in mind throughout conducting study and an open mind to any emerging evidence that could be contradictory to prior beliefs and understanding. Moreover, the interviews have been conducted professionally through avoiding to express opinions and asking probing questions into interesting evidence arising in the interviews. In addition, prior to the field research, a theoretical framework has been compiled and field research focus and structure has been designed through this framework in order to provide a theoretical angle to the phenomenon, provide guidance and distance the researcher from the organization. Finally, two of the interviewees had left the company by the time the research was conducted and as such, could possibly be more open in their answers and in expressing their opinion and therefore, increasing the validity and reliability of evidence.

4 Empirical part

The case company is a mid-size publicly traded Finnish multinational company founded in 1975. The company is a developer and manufacturer of electronical products to industrial and telecommunication network sectors. However, the company has traditionally had a very strong focus on concentrating mainly serving only the few largest companies in the telecommunication network sector. In fact, the company was originally founded to design and manufacture custom built rectifiers, inventers and power supplies for two of the world's leading telecommunication network clients. Since then the company has diversified its product portfolio and customer base. At the time of the study, the group had operations in Finland, Italy, China, USA, Sweden, Estonia and Tunisia. The company will be referred to as the group from this point forward

As many companies in the world, the group experienced a considerable drop in demand in 2008 and 2009 due to the financial crisis. The decline in demand was followed by strong growth during 2010 and 2011. However, due to the financial crisis, the group became increasingly aware of the risks in its reliance of telecommunication sector dominated by two major customers that constituted almost 80% of its net sales in 2011 and 2012. These risks began to materialize in 2012 that was characterized by strong fluctuations in demand of telecommunication products. In line with recent strategic changes, in 2013 the group completed the acquisition of SPA, an Italian electronical power supply and rectifier company that had a strong focus on industrial sector, a wide product portfolio consisting of standard as well as custom products and a larger customer base.

As a result of the acquisition, the group's net sales in 2014 was split 54% in telecommunication sector and 46% in industrial sector. However, even with the sizeable acquisition the groups' net sales in 2014 finally only reached the same level it had been in 2011. In addition, the group remained highly unprofitable between the years 2012 and 2014.

4.1 2015 – 2016 Functional Structure

In 2015, the group appointed a new CEO. Prior to his appointment, the group had operated in a business unit structure consisting of three units. One of the units was the recently acquired SPA and the other two units were an ambiguous split of the group as it was prior to the acquisition of SPA into industrial and telecommunication sectors. The split was ambiguous in the sense that they shared many of the same functions such as sourcing and procurement, manufacturing, administration and partly research and development. Furthermore, the telecommunications sector had historically been the dominant unit and focus of attention.

In 2015, the group initiated a new strategy which included restructuring of the organization into global functions. The goals of reorganization were to increase integration of SPA into rest of the company, focus resources of the whole company to better serve customers and reduce duplication of work. By that point, SPA was still using its original name and brands and run as a separate entity altogether with little integration yet.

The global functions were created as global combination of cost centers at each country. The previous general manager of SPA was appointed as global head of sales and marketing, head of operations was gradually moved from his role and left the company, the head of research and development of telecommunication and systems was appointed as the global head of research and development and finally, the CFO of the group was given oversight of global general and administration which included functions such as human resources, IT and finance.

Even though the structure was already in place in 2015, there was no unified financial reporting along this structure until April 2016. All the businesses and legal entities continued with same reporting as they had done before. In April 2016, the finance function in SPA started reporting the consolidated sales margin by product, customer and customer group for the entire group. The calculation was complex due to internal sales between Tunisia and Italy as well as China and Finland. As the report was to represent consolidated sales and sales margin, the internal margins had to be eliminated at product level while product costs had to be calculated using actual realized manufacturing costs each month.

Meanwhile, finance at headquarters in Finland took over the responsibility of providing consolidated fixed expenses report following the cost center structure. The report was to include following dimensions: local account, group account, global function, subfunction and legal entity (namely geographic location). One of the major complications of both these reports was that practically every company in the group had a different information system which made consolidation of the data a manual, time consuming and error prone process. In addition, the consolidation of the reports was made in excel on transaction or account level resulting in a sizeable pivot file.

In line with the group level reporting and organizational structure, functional managers were held accountable for the fixed expenses of their cost center through budgeting. In addition, sales and marketing was held accountable for sales and operations for product cost through sales and sales margin budgeting. Financial expenses were not included in the unified group management reporting and the overall responsibility remained within global finance function and group CFO.

While revenue grew reasonably in 2015, the company continued to be highly unprofitable. Additionally, especially in the telecommunication sector, the company was facing increasingly intensive competition and losing out to its competitors for new product projects. Therefore, the company's product portfolio was becoming more mature and some products started nearing end of life. Then early in 2016, Net Sales declined significantly and the company recorded considerable losses. In the summer of 2016, the company appointed a new CEO who will be referred to as the CEO from this point on.

4.2 Matrix organization 2017-2018

After his appointment in 2016, the CEO focused initially on outsourcing the production in China. This production facility was the producer for telecommunication and industrial businesses from Finland. The company's goal was to reduce overheads as well as tied capital considerably and outsourcing of the production facility was a large part of this process. Outsourcing was finally completed in 2017, however, operations in China still continued on a smaller scale as the company still had sourcing & procurement, technology & development, sales & and marketing and administration staff working there. All of the telecommunications production was outsourced to a Chinese supplier while systems production was moved to the company's own production facilities in Tunisia. Prior to this change, the Tunis facility had been serving the sales from Italy.

> *When I joined the company in spring 2016, the financial situation was very challenging. This created external pressure to look for solutions and of course we were looking for cost efficiency with the changes. From my experience, cost efficiency can be achieved by getting numbers closer to people so that there is not just one lump but instead you can see the effects of your efforts. (CEO)*

In 2017, the CEO initiated the move from functional organization to a matrix organization consisting of business lines and support functions. The change in structure was motivated by needs to increase financial performance though getting numbers closer to people.

From the functional organization, we created four business lines in which the managers would be accountable for sales margin, EBITDA and net working capital. Therefore, there were three indicators. Sales margin because it was an indicator that the company was accustomed to, EBITDA in order to have accountability for fixed expenses and the third indicator net working capital that was worked on for two years. First, we had to start with teaching people what is net working capital and what it means in practice. In addition, we were focusing on customer satisfaction and supply reliability. However, from finance point of view these were the three indicators that we wanted to focus on. (CEO)

According to the new structure, four business lines were created. These were Telecom and Systems which were managed from Finland and Sweden, and Digital light and Digital Power which were managed from Italy. Each of the business lines were to include the following functions: Sales & Marketing, Quality & Environment and Technology & Development. In addition to the business lines, global Sourcing & Procurement, Operations and General & Administration functions remained as in the functional structure. Managers would be held accountable for three key indicators, sales margin, EBITDA and net working capital (NWC).

In the new structure, the previous Sweden based key account manager for one major telecommunication client and head of key accounts was elected as the head of Telecom business line. The previous Italy based Sales & Marketing manager was appointed as the head of Digital Light and Digital Power business lines. The previous Italy based Sourcing & Procurement manager remained in control of his function and was additionally appointed as the head of operation. Meanwhile, Finland based previous Research & Development manager was appointed as the Systems business line manager. Finally, the CFO of the group assumed control of the other support functions such as finance & control as well as IT. Therefore, there were no outside hires and holders of central roles in the previous organization structure were given a central role in the new organization while some were promoted from within the company ranks.

The current production manager was gradually moved from his role, sales and marketing manager gained a larger influence to things he wanted to control, sourcing and procurement manger retained his position. In principle, we tried to offer as much if not more responsibility to the managers. (CEO)

However, although the business lines were to have certain functions, the split was rather ambiguous as business lines in SPA, Digital Light and Digital Power, shared all the S&M and R&D resources while Telecom R&D supported heavily Systems R&D in product development. While the structure consisted of global functions and an ambiguous split of business lines and the group wanted to report business lines at EBIDA and EBIT level, this meant that the reporting had to be built partly based on directly attributable cost and profit centers as well as allocating costs of global functions to the business lines. The reason for implementing such ambiguous structure instead of independent business units and creating profit and loss visibility through allocations can be seen from following quotes by the CEO and operations manager.

> *The company had made a significant change in logistics and the thinking was that global logistics resources will be cost effective and therefore it is sensible to maintain unified logistics. Meanwhile, the idea was also to eventually lighten the central (operations) management by transferring duties to business lines by already appointing some employees (within the function) to support certain business lines. At the time, the business line heads did not have the required ability and experience from running a business and therefore it wasn't possible to transfer all the duties at once to the businesses. The idea was to progress step one, step two, step three. At the time, we also believed that having a unified operations organization will lead to better result when production facilities were intended to produce products for all the business lines. (CEO)*

The progress made in the global sourcing and procurement was also highlighted by the head of operations while he also emphasized the need to be closer to the customer and markets from business point of view explaining the decision to implement a matrix structure.

> *In sourcing, we put a lot of effort since the acquisition in 2013 to create a common approach to the key strategic partners or suppliers. So regardless of whether the component was for telecom or power or light, we tried to approach as one strategy. Which were the key partners we wanted to focus on for needs of our business lines. So we took decisions accordingly in order to cover the commodities and best serve the business lines. […] One of the goals was also to have an organization that could respond better to the market requirements. Moving from the pure functional organization the matrix was a way to combine, maybe on one side trying to maximize the benefits of global approach to partners and suppliers and so trying to leverage the scale of the company instead of fragmenting. At the same time allowing different sales organizations to be more focused and adapted for the market requirements. (operations manager)*

There was an understanding that the group had made progress in creating global operations during the functional structure. The corporate management recognized the benefits of having a global operations function as that would give the company economies of scale with regard to purchasing, negotiating power towards suppliers and avoidance of duplication of roles. Therefore, the company was still looking to gain cost and operational efficiencies through having global operations and administration while recognizing the different nature of the businesses and allowing them to focus on specific customers and markets from sales and development point of view. In addition, it was viewed that some of the business line managers were still too inexperienced to assume control of full business units and instead, it would be better to progress in steps and create a matrix organization where all the costs are allocated to business lines.

The reason for allocating the costs of global functions was that during the functional structure, the group had lost visibility towards profitability of each business and felt it was necessary to regain this visibility as highlighted by the following comments of the CFO and systems business line manager:

> *The goal was also to drive the understanding that the cost structure needed for achieving the sales margin, these should be in balance. The reason for allocating the costs was to see how profitable the business lines actually are because this view had been lost in the functional organization. (CFO)*

> *You could not clearly see where the money was coming from. Money was coming but there were many opinions and views of what is profitable and what is not. I think the business line thinking was good and it was important for the CEÒ to bring clarity. I remember his reaction in the beginning when he came, he couldn't make any sense. He was asking a lot of questions like how much margin is made, how much profit is systems making or how much Italy's led drivers are making? He got 15 different answers and he was very frustrated. Many times, I was with him on a flight and he asked did we find out anything of the situation? He had a healthy reaction to it that hey, I don't understand anything what you are saying to me. He reacted in a right manner and made the organization more measurable. (systems business line manager)*

As mentioned earlier in the description of how the functional cost center reporting and sales margin reporting was built, the same problems regarding the information systems and internal transactions still remained when the matrix organization was designed. As the reporting of the functional structure had become the core of management accounting, the new business line reporting was built on top of it. The sales and sales margin for each business line were directly attributable through the product profitability report compiled by

SPA accountants. The fixed expense report was used to directly assign cost centers to business lines and as the cost basis for allocating the indirect cost centers.

The allocations themselves were designed through discussions with business line and functional managers to determine the most appropriate cost drivers. The resulting allocation drivers were finally very detailed and calculated on monthly basis. For example, the sourcing and procurement functions were allocated to business lines through multiple drivers on sub cost center level such as PO lines, material value of sales, quantity invoiced and cycle time. Meanwhile R&D cost was allocated through hour sheets and S&M based on pre-determined percentages of time usage per business line for Digital Light and Digital Power. Finally, the global general administration was allocated based on headcount and share of revenue.

4.2.1 Matrix organization and profitability accounting

The functional organization had only been in effect for two years before it was changed to matrix organization. During this time the group had lost visibility to the profitability of businesses and the management of the company saw that the best way forward would be to implement a matrix organization where costs are allocated to business lines to regain this visibility and line of accountability. In addition, it was viewed that the functional organization was not working optimally and had not been internalized.

> *‘'The [functional] organization structure was built by my predecessor in fall of 2015. However, Italy was working partly as its own entity and what really bothered me was that everyone was talking about sales margin and being profitable was understood to come from sales margin.[…] This (sales margin) has to be also contrasted to what are the fixed expenses per business line. […]. The company had a tradition of working based on geography and in reality the functional organization never worked in a optimal way. The weakest element was that accountability was too easily transferred to others. If something went wrong somewhere, it was always someone else fault. (CEO)*

The CFO at the time further expanded:

> *Assigning accountability for profitability was a major factor. Secondly, as SPA had never been integrated into the ETI group, the horizontal organization where you for example have R&D that has completely different processes, tools and so forth in both countries, if you are not going to integrate them, you have a pseudo structure. It’s not real and it only exists on paper. It wasn’t realistic to get the functional organization to work. (CFO)*

For example, Italy has had P/L reporting that they have had a strong focus on regardless of the actual organization structure and most likely in Finland as well. The organization structure was in a way a hybrid as it was in a way functional but for SPA the operative focus was on the what they like to call SPA Group (Italy, USA, Tunisia). This was one of the reasons why we shifted to the business line organization. […]. This was my interpretation [the organizational structure wasn't internalized and everyone had their own reporting as well] and this is why we started to push the organization. We concluded that if this is the world we live in, let's make it so then. Let's make the product lines and then compile to business units, let's assign the responsibility to the managers for that the cost structure is appropriate and profit is made. That was the idea." (CFO)

The functional organization had not been fully implemented and the previous legal unit based organizational structure still very much existed. In addition, the acquired SPA had never been fully integrated into the company. The management accounting and reporting had been built to follow functional structure but this did not follow the actual, informal structure of the group. The different parts of the group still had an operative focus based on the structure prior to the functional structure. While the corporate management accepted that the functional structure in fact didn't exist, they also saw that it wouldn't be sensible to implement it as the businesses had very different processes and a business line organization where managers are held accountable for EBITDA instead of just costs and sales margin would be the best way to go forward. The management also felt that there was a lack of accountability within the functional organization and the management wanted to change this through changing the organizational structure and management accounting. They wanted to extend financial accountability beyond cost center and sales margin responsibility to include EBITDA in order to highlight the need to have sales margin and fixed expenses in balance.

My understanding is that, for example, there was a global sales organization, but I'm not sure was the manager in reality accountable for it. Did he for instance go over the global sales figures at the management meeting? That I don't know. In my view, in a way it (the structure) was a type of matrix even then. Italy was concentrating very strongly on the SPA group result and the manager was in his mind, first and foremost, the CEO of SPA and only then sales and marketing manager. The organization structure and management accounting did not match. This is my interpretation. (CFO)

The goal was to transfer accountability to management in a way that the numbers are closer to them because the problem in my view was that we have fused two, maybe three businesses which each had their own cultures and way *of looking at things. With the functional organization, it was extremely easy to transfer accountability to other people. The idea that I can have an effect on a number was not close enough to people. Therefore, we tried to build the organization so that people would see the effects of their efforts more concretely. (CEO)*

This was further supported by the group controller while he further emphasized the importance of accountability over profitability as the main driver for the change:

The main goal was that the business line reporting drives to that every month you get given, this is how much EBIT you have made, this is how much profit you have brought to the group. This is your responsibility to get this number to go up. It's not rocket science but as a way of managing it's quite simple. (Group controller)

While changing the organizational structure was an integral part of the overall change, it was made numbers first. The group wanted to leverage the economies of scale provided by global operations and administration while accepting that the functional organization would not be feasible. However, at the same time the group wanted to create the business line organization to gain visibility that was perceived important therefore resorting to allocations. The numbers first view is further supported by the following quote from the CFO who was asked whether the organization change was the dominant change.

I would say it is other way around. The organization change was made in order to change the accounting into this model. The organization and accounting change were at least 50/50 if not the accounting being more important. It was also the strategy to see what these businesses are (through numbers) to see what we are going to do about them. At the same time, all businesses were making their own business plans which was a part of the evaluation. This required the organizational change but it also required the accounting change so that we can understand what the businesses are. […]. This was also a pre-carve out for us to see how separate the businesses are, it helped us understand where the businesses had overlaps and where they were separate. Therefore, it created certain boundaries for how we can think of the future business portfolio and what we can do with them. (CFO)

4.2.2 Power, accountability and special interests

The goals of the changes were based on powerful economic arguments of cost savings and efficiency while promoting accountability. However, this view was not shared by all.

> *Well… at least what was told at that point was that the functional organization is for a larger company and that here (with business line structure) we are looking for benefits for smaller company… but if we are talking about the reason, I believe that already at that point there was a goal to look for what we can separate and later sell away. With hindsight, this view has only been strengthened along the way and finally telecommunication did find a new owner, but I believe that there were other (businesses) considered along the way as well. This I believe to have been the basic reason even though it wasn't said. (telecom business line manager)*

When addressing the split of the SPA group into two business lines, the operations manager voiced similar suspicions:

> *I have always seen this as a division more on paper than reality. Because if you go deep into the organization, the sales organization was not divided in that way, it was more on the channel [actual division of duties] than digital light and power. […]. It was mainly an accounting aspect of better understanding the profitability of segments. I would say like this, if I find opportunities in the market maybe for merging other companies, or even selling or buying pieces of business. It's much easier to have a better understanding from the accounting point of view of profitability of power, light, etcetera and to make strategies. If you have all merged together it's really challenging. (operations manager)*

Some of the managers did not buy into the official goals of the change. They suspected that there were ulterior motives to the change in the form of selling parts of the company away. Therefore, there was a lack of trust towards what the actual goals of the changes are. Some of the business lines saw the accounting changes as an attempt to create accounting entities, a sort of carve-out structure that can be divested. To certain extent, the possibility to divest some businesses had also been officially stated as a possibility by the corporate management:

> *It was openly told in management team that every business is in the shape that we can either buy more into it or it can be divested if necessary. This could have created to some the perception that the only goal is to sell. It is possible that this created resistance. However, in my view this is positive factor but perhaps for employees who have been here 10, 15, 20 years, it creates uncertainty but for me it only creates positive angle as the goal here is to get the businesses to compete with each other for who will get potential investment funds. There needs to be competition because a company that is in a state of stability for too long, is usually going to lose*. (CEO)

The corporate management had in fact communicated that divesting is one of the options. However, from the corporate management point of view, the goal was rather to create competition between the business lines for investment funds while maintaining the threat of selling the business in case it is not performing. Instead of creating positive competition, this led to some managers believing that the only goal was to sell, therefore creating an uncertainty for especially long serving management and providing grounds to resist the change.

When the business line organization was built, the management had consciously attempted to give at least as much responsibility to each business line head as they had in the previous structure. However, the manager of Digital Light and Digital Power business lines had in effect been primarily the CEO of SPA and only secondarily the global S&M manager. With the new structure and the push to make operations a truly global function, it became clear he would lose control of the SPA organization including the production, sourcing and procurement as well finance and IT.

> *Even though the previous organization was functional, it was as I mentioned a pseudo functional organization. The actual organization even then was business unit based. This was especially the case SPA group which was an organization of its own. This was run by the head of S&M who saw his primary role as CEO of SPA and all other roles are secondary regardless of the organizational structure. Through the business line organization, we forced… he had to give up ownership of the manufacturing and this was a big issue (in the process). This led to the argument that if I cannot control these, why are these in my P/L?. [....]. At the time, the biggest fight and source of conflict resulted from sourcing & procurement, finance & control and IT not being included in the business lines as some business lines definitely wanted to control these as well. However, we were looking for synergies and volume benefits, for example, in negotiating purchase contracts and other aspects as well by looking at them for all of the business lines simultaneously. (CFO)*

While the resistance was directed at being held accountable for costs that you cannot control, there was clear resistance from the business line manager and informal CEO of SPA for losing control of his organization. Meanwhile, it seems that this was part of the goals in keeping the global functions separate from the business lines. The manager had held the position of CEO of SPA prior to the acquisition of SPA and held to this position through the functional structure. It was only now at the introduction of the matrix organization that resulted in the loss of control of manufacturing, operation and support functions. However, while the management accounting became the target of the resistance stemming from loss of power as well as perceived threat of selling some businesses away, it was also the cause of resistance in itself as well as the matrix structure.

> *What we realized only afterwards, was that the idea of the matrix, that even without being directly under your line organization and having direct control, you should influence and control operations, did not work at all. It was black and white, either or (for the line managers). After all, we specifically looked for, and communicated out loud, that we were (through the allocations) looking for conflict [between business lines and operations]. What we were trying to achieve with this positive conflict, is that the business line head challenges the sourcing and procurement for why are they doing something that raises their product cost. This way we should ensure that the company benefits instead of optimizing within global (operations) or business line view only… the business line and operations should then come to an agreement of the trade-off and if not, me and the CEO are excellent referees. This influencing we did not achieve. Instead the reaction was: if this is not mine (managers), I will down tools and will not interfere with it, this of course culminated to persons and inexperience in how matrix operates. (CFO)*

The management was looking for the conflict between business lines and operations through allocating the costs. The goal was to get the business line managers to question the level of service and its cost while avoiding sub-optimization. However, some of the managers refused to accept costs that they cannot control into the PL. From the corporate management point of view, this came down to the individual factors as well as inexperience in working in a matrix organization. Meanwhile, the operations manager whose costs were allocated to the businesses shared a similar view in acknowledging that some business lines definitely wanted to control their own operations while resisting being held accountable for costs they could not control.

> *Absolutely, 100% percent [to control their own operations]. I can tell you that this has been for a long time an element. Not everywhere but with some business lines this has been really a strong topic. The topic was from business line leaders, how can respond of PL even if I don't have control of sourcing strategy of procurement strategy of manufacturing, suppliers, so on. Which is in a nutshell a key of my cost in PL. This, with some business line was really a big topic but as I said, not with all business lines. But this for sure was an element of discussion and attrition sometimes. Honestly, my personal view of this is that it goes very much to the maturity of the company or an organization to work in matrixial role instead of a pure functional role. (operations manager)*

While the corporate and operations management felt that the resistance to being held accountable for costs that are not under direct control of the line management was due to power as well as the company lacking maturity and experience to work in a matrix organization, the businesses had concerns over the accuracy of the allocations and the service level they received for the money.

> *Product profitability reporting was very useful and helped us a lot. This gave us visibility to what the product costs actually are on top of BOM. This was maybe the best thing that came from cooperation. The allocations however, allocating the work, it caused that the cost could not be traced, 20% of this, 30% of that but what we actually got was a different question. It did not in the sense make it difficult but the costs were maybe sent to somewhere where they didn't belong. […]. If you for example should be getting a quarter of time from someone work in Italy, where do I see that I get that time when I feel that I don't get anything. There is not the same possibility to use those resources as the resource is sitting next others who he works for. (telecom business line manager)*

> *In our view no [getting service]. This created tensions on this side in the same way as there was invoices coming in from that direction. There was all kinds of overheads and mark-ups and others. It became an internal transfer-price competition which is a very bad thing as well. Nobody was able to do anything about it as it could have fixed. It's completely artificial moving of costs and it is still happening. In my view, it is a serious system level failure when you see culture such as this. It was easy to question that this is not what we are getting. […]. The lines themselves were justified as they did do something for us but the picture was distorted, let's say it that way. (systems business line manager)*

While the business line manager saw the product profitability report (consolidated sales margin by product and customer) being very useful as the business line had never had such visibility, he did question the usefulness of the allocations. The resentment came from costs being ambiguous and hard to trace as well from the feeling that he was being assigned costs that did not belong to him. In effect, there was a feeling that he was paying for something that he did not receive while not having the possibility to influence these costs and the service level. Meanwhile, the systems line manager also highlighted the feeling that they were not getting the service they paid for and the allocations were artificial. Moreover, he suggested that this created a "transfer pricing competition" that was unhealthy for the company.

The operations manager also acknowledged that there were discussions over the service level compared to the cost, however, he did not fully share the view that the level of allocation would have been distorted and some business would have been paying for service they did not receive.

> *Yes, I remember this kind of discussions which were, I would say now in two areas, one area was the allocation of global functional costs to the business lines, which was referable not just to sourcing and procurement but all global functions. So it went to all global functions that were allocated to the different business lines and sometimes the comments received, again not from all but some business lines was, I don't recognize this value added coming back from allocation of costs. Or I don't see how or why I should pay with my business line for these if I don't perceive I'm getting this kind of benefit. […]. In the amount that was charged to the business lines or if the business line was receiving an equivalent perceived counterpart because I talk about perception, was hardly, I remember an objective discussion saying I pay for this, I receive this. The same was to my memory for other functions, so if you had the global finance or CEO or others, how to reallocate that cost to different business lines. (operations manager)*

In fact, the operations manager felt that the allocations had been thoroughly and objectively designed:

> *I remember in the end there was a very long work together I spent with you and others in Finance team. To my memory, I think what was achieved at the end was quite articulated but was fair, made sense and quite objective on the reality of the people. Even in selection of the drivers etc. It was the best we could achieve what we had. (operations manager)*

The operations manager highlighted the use of the word perceived and stressed that it was hardly an objective conversation suggesting that they had also other reasons for questioning the costs. Moreover, while the business line managers mainly stressed the feeling of not getting service from operations, the operations manager highlighted that similar questions were asked about the administration allocations. The group controller of the company provided further support for this view.

> *The business line head has the right to ask from the service provider whether the real-life benefits have truly manifested from working together and does it match the cost that is in the income statement. This does create discussion and should create discussion. […]. However, on the other hand, the line manager should start from looking at the result after direct expenses and understand how the result after those expenses has developed before going into discussion about the corporate overhead allocations and other. From experience, for many business line managers the discussion goes first to the allocations in*

order to shift focus from the business performance. This is the classic situation especially if revenue is falling. If revenue is in the right direction, then the business line manager does not question the allocations as much but unfortunately for us the direction is opposite and the discussion has gone on the wrong path. (group controller)

While acknowledging that the business line managers have a right to question and should question the service level provided by the global functions, he shared the view that the discussion was not only motivated by the level of allocations and service but was also stemming from the poor performance of their business. Therefore, suggesting that it was at least partly motivated by shifting attention away from the performance of the factors under their direct control. In fact, most of the businesses along with the group were performing below expectations in terms of financial indicators.

The allocations were designed to create discussion over the expenses of global functions cost and service level. These questions did arise but perceptions differed. However, from the corporate management point of view this did not lead to the influencing that they were targeting. Instead, it was suggested by one of the business line managers that this created an unhealthy culture of "transfer pricing competition". This view was also supported by the operational manager who saw that this created internal friction that drained the energy of the employees and resulted in losing focus on the outside world.

Overall the group, from the numbers we could see that we did not obtain the expected results. When you are in this kind of situation, you try to understand the root causes, try to define corrective actions. I remember that time the several discussions: it's because of my performance, because operations is not delivering. And vice versa, operations was claiming that business was not providing reliable forecast or the demand was not strong not enough and we were losing customers or it was below expectations in terms of volumes and back and forth. I think overall, that we were probably or sometimes this is the risk of company to lose a lot of energy in internal discussions and lose a little bit of focus to outside world, customers, suppliers and markets. And you are entrapped to inside the company and this is not healthy for the company when you end up in this mood of looking into the other field. (operations manager)

While the business line managers did not directly criticize allocations themselves, one of the business line managers later highlighted that it was only after the allocations were largely removed that he really understood and could analyze where the costs were coming from. The detailed nature of the allocations and transparency of the management accounting was also questioned by the CFO.

> *The new reporting for the business line structure was largely designed before I joined. In my view, it was made too detailed. Based on previous experiences with allocations, they need to be very clear in order for people to understand them and to understand what drivers are used for allocating. Partly due to the fact there was resistance to the business line view and idea, and partly due to the thinking that what is not mine I don't control, the allocation was finally made in a way that makes the outcome ambiguous. If the business line managers were asked where does this (number) come from, nobody could answer. The reason why the business line reporting was accepted (by managers) in the first place was that everyone had to get all the details included in the report. Nobody or at least some was ready to accept it as roughly right but instead it had to be made on level that bares no meaning anymore. Especially with regard to (allocation of) global functions. (CFO)*

4.2.3 Autonomy

Since the acquisition of SPA, despite the functional structure, the companies had not yet been integrated to each other. In effect, the group had two headquarters, one in Finland and another Italy, as well as businesses that had all along been separate and had different tools, customers and business logic. While moving to the business line structure from the short-lived functional structure, the decision to continue with two global functions, in addition to the aforementioned reasons, can be also viewed as an attempt to continue integration. However, despite the matrix structure, the group management wanted to gain visibility to the profitability of the four business lines of which two were based in Italy and two in Finland. The company had lost this visibility and lacked understanding what was profitable and what was not. While the split of digital light and digital power was rather ambiguous and mainly a calculative practice, it can be seen as an attempt to understand how the business in Italy works and what is driving the results. However, as Italy had been operating as a separate entity with its own structures, management, reporting and little prior central interference in these, this increased visibility and splitting of Italy was met with resistance.

> *One definite factor was also that the current management in Italy was very protectionist. Everything that was viewed as group intervention and influencing was poison to the management. The worry was that the reporting*

is a way of infiltrating the SPA and also that everything would not be in their control. (CFO)

The CFO further commented on the splitting of digital light and power into two business lines:

There was resistance to it. The Italians saw this as an invasion to their autonomy and their organization had been built in such a way that for example, R&D resources were used for both lines. (CFO)

This view of reporting increasing visibility is further supported by the views of the Italy based operations manager.

That could have made sense to even have profitability by customer. I remember attempts to achieve that but apart from very short time it was not used much, it was also challenged very much, or per product. We always stopped at higher level of profitability and hardly went to the bottom line for customers. [Was there resistance?]. I think so, yes. Honestly, I think so, you might have difficulties to correctly allocate the costs. With the given systems, the ERP system we are using and the tools we are using. Of course, there are limitations to have a perfect work done or apparently perfect work done. But overall there was some resistance to it. […]. The fear was that looking at some customers for PL profitability point of view could have meant a company decision to get out of given customer and then the challenge was how do I get back to this level of business with other customers. That was resistant, or products, it can be the same for products. We never had a bottom line for products, we always stop at max a gross margin. (operations manager)

While he was not directly assessing the split to digital light and digital power, the operations manager was referring to attempts to calculate profitability on an even deeper level such as customer and product. However, he did highlight that the resistance to this increased visibility originates from fear of group interference to SPA internal operations and as such, violation of its autonomy. However, there were also real concerns about splitting SPA into two business lines from sales and marketing as well as research and development point of view because the business lines were using them as a common pool of resources and splitting them could lead to duplication of these resources.

4.2.4 Information systems and accounting structure

The group had a very fragmented information system structure. While Finland, China and Estonia were using the same outdated ERP system, the other major companies such as Tunis and Italy had separate ERP and accounting systems. In addition, the other smaller companies such as Sweden, USA and others did not have ERP systems and had external accounting companies compiling their bookkeeping. While the company had consolidation software to compile consolidated financial statements, it was based on the legal entity structure and only held account level information. Due to the nature of the system structure and the way the business lines were formed, the business line reporting was compiled in excel by consolidating accounting data compiled from all the systems in the group as well as external accounting firms.

> *The biggest barrier was information systems. The information systems were too decentralized and it is easy to say with hindsight that at the time we should have started changing information systems. It could have been possible but we were wary of undertaking such a project simultaneously although with hindsight it might have been a mistake. (CEO)*

> *One of the practical issues in implementing the change was the flexibility of the systems. One factor that slowed down the implementation was that the basic product profitability calculation and management accounting support was in a dire state. In order to make changes such as this, you need to have a very solid and systematic management accounting that you then translate to new. Now that we built on top of a time consuming and laborious reporting, it did not support decision making in the way required. Especially with product profitability, the report comes so late that the actions are inevitably reactive. (CFO)*

The business line profitability reporting was built on top of pre-existing reports that are very manual and the whole process took at least 10 working days to complete each month. While using pre-existing reporting as the basis made the change easier to accomplish, it became a major barrier for reaching the goals of the change effort. The management took a conscious decision at the time to not invest in new information systems at the time but with hindsight, concluded that this should have maybe been done. The inflexibility of the systems was to become a major source of frustration to the management as it was time and energy consuming and meant that any corrective actions would be very reactive due to time lag.

> *It took way too much time to collect the data and therefore analyzing the information was too far. We collected the data but the phase that should be done very quickly after month close, the analysis, was too weak. People ran out of juice by the time monthly reporting was finally closed. […] Also, if with the changes we could have used more time for analyzing, I believe there would have been much less resistance. If instead of taking 10 days to complete reporting, we could have cut it by two to three days and use this time for*

analysis, there would have been much more support from everyone as it would have increased the feeling that it serves. Now, we could bring the service aspect forward enough. (CEO)

In a small organization where one person is doing the reports, you should serve many people as in our case. The challenge is that many of the managers are sales people who don't understand so much about tracking expenses and running the business on general level. You provide the information but the next step which is the most value added, the opening of the drivers in order to make better decisions and from accounting view, when you cannot provide automatized reports and not cannot give automatized reports to the mangers so that you wouldn't have to report everything in excel. In our case, this discussion then should be more free-form discussion. [...]. This type of discussions are what create shareholder value and clarity through numbers. If the provider of the numbers and the business line manager don't have a natural discussion, then it doesn't work. (group controller)

Due to the significant effort taken by the reporting, there was little time to analyze the results. As the business line management were coming from sales or development backgrounds, they had little prior experience in understanding costs and their drivers. Therefore, the corporate management viewed that the management would have needed more support and analysis from the accounting staff. However, by the time the technical aspect of reporting was completed, the staff had run out of juice and were preoccupied with other finance matters. As such, the analysis and support side was too little too late. This resulted in the reporting not providing the benefits it could have done and bring forward the service aspect. In addition, this also had another consequence as well.

As the reporting could not keep up with the decision making support need, this lead to that, the prior reporting practices, informal side reports, which were often very manual, continued to exist and were used as they had always been done. As this unofficial, that's why I call it side reporting, was run by the managers, changing it was difficult if not impossible. (CFO)

When everyone still had their old systems as well, they did not stop using them. Instead, in a way we did "double work" because in the beginning there was no trust in the new figures. The further you get from the headquarters, the more certainly old reporting was used because of being used to do them for 10-15 years on top of which the management still required these reports. The only way to change this is to blow up the basic systems to remove the possibility to continue this way. (CEO)

The new business line reporting was intended to replace old group reporting as well as any other profitability reporting used in the businesses. However, after the initial lack of trust in the numbers, due to the inadequacy of information systems, the business line management kept informal reporting structures running and therefore, the new reporting did not replace the pre-existing, now informal reporting. In effect, this created double work for the finance department which in turn further reduced the time for more value added analytical and business support work. This in turn was hindering the attempt to increase financial accounting based on the new reporting and structure. In fact, the lack of unified information systems were viewed to be such a major barrier for the changes that it was highlighted by the CEO on multiple occasions and finally noting that when undergoing similar projects, the lesson to take from this case is that you need to invest in a unified information system to make it work. However, while the problems related to inadequate systems were a significant cause for old reporting persisting, it was suggested that it was also due to adherence to old ways of working.

> *Another is the attitude and thinking. The readiness to change ways of thinking and doing. This is where me and the CEO probably of whom both are accustomed to if not change then at least look at the year organization on yearly basis, did not realize how difficult it is for people to cognitively change the way things are done. (CFO)*
>
> *Also, when people have become accustomed to doing things in a certain way, it is much easier for people to continue doing things as they have always done even though it would be time consuming as it creates a certain security. This was a weakness. (CEO)*

While the adherence to old ways of working were one of the barriers for increased financial accountability and for the new management accounting and reporting, it was also a wider issue in implementing the new structure and for getting people to change the way they are working. In addition, the company had always been a very research and development company that is focused on producing mainly customized products to select customers.

> *If you look at Finland, the culture has not been numbers oriented. When I came in 2018, in my view the business line managers also didn't want understand the numbers, this what the profit accountability is, understanding the numbers. They didn't understand that. The big picture is that the culture wasn't results oriented which means de facto that you are primarily interested in the numbers. The first thing to be discussed with the managers is not product launches or development projects and what people are doing. Instead, has the*

> *result come, has the sales come, these are the things to go through first. Then you go over how you are going to do the next numbers and this is when you discuss the projects, lay-offs or whatever. In a results oriented organization, it is quite brutal, it's show the numbers, nobody is interested in anything else. This organization was not results oriented when I came in 2018. [.....] This has been a very product development, engineer oriented house. If I would concisely pin point the major problem of the company, it would be that this has been primarily a customer serving engineering department instead of a profit unit that makes economically sensible decisions. (group controller)*

Due to the nature of business, the group as a whole had a strong engineer and customer needs oriented culture. However, this was especially the case with Finland and the Telecom and Systems business lines located there. The focus of the group had always been in designing and producing high quality, customized products to better serve the final customer. There was a strong belief that focusing on these areas would then automatically lead to profitability which had been the case in history but had not been the case in previous years. While one of the main goals of the change was to increase financial accountability and become more results oriented, the group controller saw the engineering and customer oriented culture, especially in Finland, being a competing force for results orientation when he arrived in summer of 2018. Meanwhile, as earlier highlighted by the CFO, the group was not accustomed to working in a matrix organization. This was especially the case in Italy as it had historically had a very hierarchical organizational structure where decisions are centralized. This was further highlighted by the operations manager.

> *I honestly have matured a personal view that no matter the organization but what counts is the people that are living in the organization. How much you are used or inclined to manage in collaboration knowing that something is, you are dependent on the others as well. There should be common work together and you cannot control everything or how much you are used to an environment where you want everything under control you want to take decision of everything. It's really a matter of people, organizational culture and the teams are used to and managers are used to work together. (operations manager)*

Therefore, while the engineering and customer orientation was prevalent for the whole as a whole, it was especially the case for the business lines in Finland. On the other hand, the change effort also ran into cultural issues with regard to the hierarchical culture in the former SPA group. In addition, it was further highlighted by the telecom business line manager that national culture had also a role to play and suggested that in this environment, it would have taken more time to get the changes to work.

> *If you put together organizations from different cultures, we have China, Finland, Italy, and assume that they cooperate when being told that we have this organization. Then you are not grasping the human nature. In these people have to learn to know each other, trust each other and have unified goals. The basic thing for the line managers is to get everything together and this takes time. Yes, we can do something at this [top] level but to get it to work you need to have proper processes. (telecom business line manager)*

4.2.5 Net working capital

The second major accounting change was net working capital (NWC). In addition to having strong focus on sales margin, the company had historically not had a strong focus on balance sheet items. However, as the company had been unprofitable for many years, there was the need to increase focus on especially net working capital.

> *Another thing that bothered me as much as was that when we are talking about sales margin while forgetting the tied in capital. From my experience, there can be businesses that do not need much tied in capital and can therefore operate with a smaller margin while there can businesses that tie in more capital and for that, you need to have a much higher sales margin. (CEO)*

> *What was concretely observed was that when the key account managers who are also responsible for the inventories were asked how much do you have in inventory, the answer was as much as is needed to satisfy demand. When they were further asked who is responsible for the inventory, as concrete example, we had a warehouse in Tallinn, and the answer was that the accountant is responsible for the inventory. The key account managers did not understand that they were in fact responsible for the inventory level and they saw that the accountant sitting in Tallinn was instead responsible. The situation was in other words a mess. (CEO)*

Furthermore:

> *Historically Italy has focused very strongly on profitability which was one of the reasons to start reporting NWC. It had not been followed at the level necessary before and it had not been questioned before. The role of NWC changed as for the CEO at the time, it was extremely important understand how much capital is tied into business. (CFO)*

The focus on networking capital was seen important by the CEO and especially with regard to Italy. In Italy, the businesses had mainly been focusing on profitability and especially sales margin had been given special attention. The corporate management wanted to change this way of thinking and increase focus on net working capital. Especially the level of inventories was seen to be too high compared to the revenue of the company. The corporate management also felt that there was a lack of ownership especially towards inventories and wanted to increase the businesses responsibility over the inventories. In addition, the management wanted to increase the understanding that profitability is not only how much profit you are making but has to be instead contrasted to how much capital is needed for making that profit as highlighted by the following quote by the CFO.

> *This was implemented for the same reasons as the profitability. One thing is how profitable you are in absolute terms after deducting expenses from sales. However, if the profitability is the same in two business lines let's 100 moneys. But to one business you have to invest only 10 moneys and 1000 to the other. If you can get 100 by investing 10, it is good business but if you can make 100 by 1000 then it's different type of business. In order to understand this aspect of the different businesses, we wanted to also include net working capital in the business responsibility. (CFO)*

While supporting the views of top management, the Systems business line manager expanded that the way in which the company was operating was very old fashioned and ineffective.

> *The second big thing was the inventories. It was in the culture of the firm, especially in Italy, big inventories were not seen as a problem. NWC punishes straight away from this and this was related to operative flexibility and improving efficiency. [...]. As an engineer the inventories were quite unbelievable. The culture how material was purchased to inventories was very old fashioned and not lean or JOT. Purchasing for lowest price was the driver and MOQ's were likely big. (systems business line manager)*

While the business line managers were held accountable for their NWC, this was in effect a shared accountability with the operations. After all, global operations were in charge of purchasing, inventory management and production while business lines were providing them with the demand forecasts. Therefore, the business lines could directly influence only the level of accounts receivables through payment terms of sales contracts and following up with clients who have not paid their bills on time. However, as finance handles other aspects such as factoring agreements with banks, the business lines did not have full control over the accounts receivable either. As such, the business line managers were held responsible for

NWC that they had almost no direct control but instead had to influence the level through collaboration with the operations and finance.

> *It was a problem as we weren't responsible, or we were responsible but we didn't have power. When talking about systems, we could influence receivables. We had one big customer in Russia who owed us. This was what distorted the whole NWC for us but accounts payable, Italy bought what they wanted and where they wanted. We had absolutely no say in it and it's still a mystery to me how they operate. […]. This was strange to me, it's a 400k gorilla in the room situation, it is there but nobody seems to notice it. I had to listen the lectures about decreasing inventories to frustration and me and HJ noted that we cannot do anything about it. I never found out the reason and it is still a mystery to me. My theory is that it is either an ability problem or then it is not perceived important. It is not about not understanding it anymore, they just don't care about the inventory. (systems business line manager)*

The systems business line manager especially highlighted that while they were held accountable for NWC, they had the feeling that they could not affect the level of it. Especially inventories and level of purchases were seen to be out of their control. Prior to the outsourcing of the telecom production to a Chinese contract manufacturer, the rectifiers used in systems products were produced by production site in China. However, when the telecom production was outsourced, the production of these rectifiers was transferred to the Tunis production site. When this change happened, the level of inventories was increased significantly. The business line manager was constantly questioned about the level of his inventories and pushed to reduce them. The business line manager tried to influence the level of inventories through discussions with operations but in the end had to hold his hands up as he felt that they could not do anything about the situation. He suggested that either the operations was lacking in ability to reduce the inventories or simply did not care about the level of inventories.

> *The businesses could primarily affect the level of inventories. The inventories were under tight monitoring but on the other hand, the inventories were also under the global sourcing and procurement function. I think the there was a lack of ownership and additionally, the global sourcing and procurement never had the global view but was only driving Italy. The net working capital reporting was mainly a calculative practice. The business lines didn't feel that they have the possibility to influence it and sourcing & procurement didn't act on it as strongly as we had expected. (CFO)*

The corporate management acknowledged that the business lines had difficulty in influencing the operations in reducing the level of inventories. While the inventories were under tight monitoring, the corporate management felt that the global operations which was mainly based in Italy, was mainly focusing on local business needs and couldn't extend their view on the global level. Moreover, the corporate management felt that the global operations did not do enough to reduce the inventory levels. In effect, there was a view that reporting the NWC was merely a calculative practice having minimal operative effect. However, the operations manager did not fully share this view.

> *Last year we overachieved the goal. I don't remember all the years but this has been a target year by year. We have grown through improvements, last year I think there was a lot of focus and in the end I'm pretty sure that we overachieved the target. Is this enough, I think no, we can do more. Maybe in certain years that was not that ok but the issue is that it should be normal continuous improvement. It cannot be one spot focus because we have a cash crisis. Some goals were achieved and also this year we are achieving some goals in inventory reduction. The process is starting to be more structured. (operations manager)*

While the operations manager acknowledged that during some of the years all the goals were not fully met, he did feel that the operations had achieved targets related to inventories. Furthermore, he highlighted that improvements in the process had been made with a more sustainable long-term view instead of just one-time push to reduce levels in order to cover immediate cash needs. Meanwhile, he also did not fully share the view of operations having difficulties in sharing the responsibility with the businesses, at least not with all the businesses.

> *I felt quite ok to work in collaboration with business line managers. Of course as operations, I am aware and I was aware of having the opportunity to implement several levers but I had no difficulty to share and work with other business line managers. In some cases, the discussion was tougher, and maybe the expectation was to have a different level of control from the counterpart. And so, the argument was, hey you hold me responsible for net working capital but I cannot control sourcing, procurement, plant so how can I respond about that. Not everywhere but in some cases this happened. (operations manager)*

The complaints from some businesses were related to being held accountable for something they did not have in their direct control in similar manner to the profitability report. These complaints were mainly originating from systems, digital light and digital power business lines whose products were produced in Tunis. The collaboration with the Telecom business line was seen less problematic.

> *Of course there was difficulties at the time (with operations). We did not always have the same view on what the buffers should be and how forecast is*

turned to orders. We have very short delivery time and from sales point of view it would have been good to build buffers based on forecast. This caused some problems but not too much. However, the flexibility was not there. (telecom business line manager)

While highlighting that there were some issues and differing opinions on buffers and flexibility, the shared responsibility was not seen as a major cause of issues. In fact, the biggest improvements in NWC were achieved on the Telecom business. However, it needs to be also taken into consideration that large part of the improvements in NWC were achieved through outsourcing of the production which meant that raw material inventories and purchasing was the responsibility of the manufacturer and payment terms were negotiated to over 120 days. In addition, telecom had used to have a significant consignment stock for a major customer in Estonia. The business was able to agree with the customer that this would no longer be held by the end of 2018 and the stock was gradually cleared by then.

Besides the major improvements in NWC of telecom business and some improvements elsewhere, the stock levels particularly were still viewed to be too high by the end of 2018 and continued to be under intense scrutiny.

4.3 Business unit 2019

While the group as a whole significantly improved its result in 2017, it remained unprofitable and net sales continued to decline. The result improvements came from considerable cost savings related to the outsourcing of production in China and satisfactory performance of Digital Power and Systems business lines. However, early in 2018, it became clear that improvement in performance would not continue in 2018 and the company already started to make plans for the future and began looking for solutions. In the end, while all the business lines were unprofitable in 2018 and experienced decline in revenue with the exception of Digital Light which continued at the level of previous year, the most dramatic changes in revenue and profitability came from the Telecom business line which experienced almost an 40% drop in revenue. As a result, the group experienced 22% decline in revenue and recorded a significant loss. At the end of the financial year, the group appointed the former CFO as the new CEO, former group controller as the new CFO, while the former CEO remained in the company to complete a special project. In addition, the head of Digital Power and Digital Light business lines left the company and was replaced by an outside hire. However, for the purposes of the study and in order to avoid confusion, the personnel will be referred to as they have been previously despite the changes in their positions.

By the end of 2018, the company decided to change its organizational structure by uniting the two business lines in Italy into one line called Digital light and Power now managed by the recently hired new manager. The global operations function consisting of operations in Italy, Tunis, Finland and China was largely dismantled and operations were assigned to businesses directly, only leaving strategic sourcing oversight and some support in the global operations. Also, the global administration function was divided to the businesses so that they had direct control over their finance and control as well as IT and human resources. Therefore, former SPA group had full control over the digital light and power business units and included the legal entities of Tunis, USA and Italy. On the other side, Telecom assumed direct control of its functions in Finland, Sweden, Estonia and China while only the group functions of CEO, group Finance and IT oversight was left in the group function.

The corporate management had also concluded that Systems business line was too small and interdependent of other business lines as well as support from global operations. However, the company saw the Systems as business that the company wants to remain in and grow. Based on this strategy, the company purchased a company called PN on 31.12.2018 and the systems personnel were moved into their facilities during spring 2019, effectively merging systems with the acquired company and therefore creating a third business unit. Therefore, in the new structure the company had three business units and a smaller group function. The global operations and administration functions were effectively dismantled and the three business units had direct control over their Sales and Marketing, Sourcing and Procurement, Research and development, Quality and Operations support, Finance and Control, Human resources and IT.

> *Even though we had global functions, we accepted the fact once again that Italy had completely its own supply chain and production and also Finland has its own sourcing and supply chain and in addition sourcing frame agreements, there were no synergies. On the other hand, the global sourcing and procurement management continued operate in Italy local context and couldn't assume a balanced role in management of sourcing and procurement for the whole group. When considering all the different things that needed to be done, even though of course we could have changed the focus of the sourcing and procurement, it would have taken so much time and effort that we decided that there are more important issues to deal with and therefore we decided to split it to business lines. (CFO)*
>
> *This a typical model where we move to step two. This was a significant part of the plan. We concluded that the logistics [global operations] function can be*

divided, it had become too large, we did not gain enough benefits from it, it wasn't motivating for the business lines. We decided that it's better to divide it and in my view, this was a logical step two that often happens in these cases. We progressed fully according to the original plan as it was made in the beginning. We also took a step back from dividing Italy into two business lines and fused them together. We saw that it was not possible at the time and better results will be gained by treating it as one business line. (CEO)

The group had been looking for synergies from having global operations. However, the view was that these synergies had not been realized and the global operations had not been able to assume a truly global role. In addition, the corporate management came to the conclusion that the artificial split of the Digital Light and Digital Power business lines was not sensible to make more permanent. The CEO concluded that finalizing the business unit structure was fully according to the initial plans and a logical step in this development. Furthermore, while the synergies from operations could have been found in long term, the corporate management saw that in the current situation it would have taken too much time and therefore had to be accepted that it would be better to split the operations.

In fact, in addition to the strategic decision to purchase PN and combine it with the systems business line, the group was also preparing for rights offering to finance the acquisition and to improve the financial position of the company. At the same time, the group had concluded that it did not have the muscles to run Telecom business on its own and decided to look for a joint venture partner or a buyer for the Telecom business line which was finally fully carved out from the company and divested in autumn 2019. Therefore, the management had multiple overlapping projects that required their attention and as such, saw it better to move into the business unit structure. However, while the management had concluded that the global operations had not made enough progress in terms of synergies and was not feasible at the time, this view was not shared by the global operation function itself.

Maybe in some areas of the company the expectation was to get much stronger results or it was not ideal. The global concept implies that always the dilemma is how much synchronized how much localized. In the moment I think we had a good equilibrium but when the challenge to be profitable starting to be more and more even for the business lines, there were claims that we were too much global and not enough local. (operations manager)

I think honestly, that having a global sourcing has a sense and its something every company should try to have. Even looking at our competitors and other companies in the electronics. The difficulty for every company or the challenge is to balance local and global. That's really the challenge. So I think my view *is that we should have tried more to balance and experiment different global versus local. (operations manager)*

Contrary to the corporate management view, the operations manager felt that they had reached a good equilibrium in terms of local and global service. Moreover, he suggested that the businesses were in fact complaining that there was too much focus on the global aspect and not enough business specific service on the local level. However, he also highlighted these claims from business could be originating from pressure to increase their own performance. Furthermore, he stressed that having a global sourcing is important and common practice in the industry and felt that the company should have tried to better balance the global and local aspect. The operations manager then highlighted that this view was shared by the global operations function in general.

The comments from the team that was involved… was more into the direction that hey, but if we split what we have built in the years, we will just throw away the job done, we will probably achieve less in terms of the results for the company and we will duplicate the structures. The comments I received from different colleagues in the different regions were more in the direction of saying that splitting the sourcing could harm or jeopardize the company ability to position itself better in the industry, in the market. So they were saying: hey, if I go to a manufacturer, shall I present as a telecom sourcing and then another guy will arrive as a digital power and digital light sourcing, and we go talk to the same persons? And yesterday they were used to see us as one company. These were the concerns and I think these were legitimate concerns. Again, we are not a huge company and we are going to split this small piece of cake and really putting ourselves even more smaller in front of the industry. I think this is legitimate but that happened and of course with the sale or divestment of telecom almost arrived to this that we have a small sourcing teams very focused on very selected businesses here. (operations manager)

The global operations function felt that they had made an effort over the years to build a global function and were afraid that this work would now be simply thrown away. In addition, the manager felt they had legitimate concerns over the consequences of dismantling the global operations. The concerns were related to losing negotiating power, duplication of effort as well losing credibility in front of suppliers as after all, the group is not that large. However, as the Telecom business was finally divested in autumn 2019 and preparing for the carve out began already early in 2019, the potential synergies of having a global operations function were further reduced. It was even suggested by some managers that this the pending situation of Telecom could have been of the reasons dismantle the global functions.

Maybe there was also preparing for the joint venture as well, I don't know. Of this I have no official information but did we already want to carve functions at that point and show that this is this. This I don't know but with hindsight it came to mind that this could have been a factor. (systems business line manager)

This view was further supported by the group controller:

There was also the separation of telecom to its own entity and truly separate business was also driving this decision. The telecom project had been ongoing since 2017 but started to actualize after only in 2019. This separation process then started to show in the reporting as well. (group controller)

In addition to dismantling the global functions, in the spring 2019 it was also decided to move the systems production from Tunis to a subcontractor used by the acquired PN. This move was gradually completed by the end of 2019 and the inventories were moved from Tunis to a consignment stock for the subcontractor. As highlighted by the systems manager, producing the rectifiers in Tunis had not been successful from the business view due to quality issues, delivery performance and inventory levels. There was also the feeling from Systems side that when they tried to question things and influence the operations, the operations got agitated and refused to support.

If we made forecasts to Italy about volumes, how they translate this and how they manage production. Production planning is very strange to me and I don't quite understand it. Even when trying to account for cultural differences and exclude them as things are done little different in every country. The end results you see in customer satisfaction, quality and delivery performance tell a clear message that this is not going too well. This is a weak spot. [….]. Cost accounting from door to door was also never made, so that when 10 products are ordered and you make hundred of which most work. However, how much do you lose material and make into inventory. This type of analysis I did not see and nobody was interested in. As SA [Finland based employee] said well, they hang up the phone and don't answer to phone for a few weeks when you start talking about these things. They get agitated when you start to dig into these things. (systems business line manager)

While the Telecom manager had not experienced similar issues with the operations, he did highlight that there was a feeling that the operations personnel based in Italy did not necessarily understand business logics of the Telecom business.

The most difficult was that the operations was not included in the business. For example R&D was included in the line and it was easy to get decisions on projects and so forth. However, the material side, getting resources from *operations to the projects was more difficult. Operations management was not against Nordics and tried their best but the resources we got from Italy, although they tried, never really understood our business. Many times when we were negotiating, the understanding of the goals was so different that it consumed our energy and momentum. (telecom business line manager)*

However, in the end the corporate management concluded that there had not been enough progress and cost savings made and despite the differing views of the operations, it had been a mutual feeling that the operations should be divided to the businesses.

They had apparently made a significant cost saving before I joined in 2015 and they felt that they had already adapted the organization. However, after 2015 nothing had happened. It can be said that the operations organization was designed by the book but our revenue was missing one zero. The way that the operations was operating would have been a good fit for a company with ten times the revenue. (CEO)

This should have given better condition to the business line heads to run their business and ease the tensions between business and operations as well as administration. There should be less collisions this way. This mainly created resistance from within the operations function. They wanted to keep it as one entity but everyone else agreed it would be better to divide. They could not give the service that the business lines needed. (CEO)

While the organizational structure was changed, also the accounting and reporting was changed as well. As the global functions were largely dismantled, the allocations were no longer required. Therefore, the reporting was mainly based on cost center and profit center structure. However, as some strategic sourcing support remained, this was decided to charge from the businesses through pre-determined monthly service fee instead of allocation. In addition, certain costs such as stock exchange costs, CEO, global finance and board costs still remained, these were still allocated to the businesses based on budgeted revenue on monthly basis as a corporate overhead allocation. From the business line view this could be described as a tax.

In the old reporting, the allocations were not directly visible from the business line report and as such, there was no direct visibility into what is the direct cost of the business line and what is allocated for it. As earlier noted by the CEO, this had resulted in the business line heads not knowing being able to tell where the numbers are coming from. In the new reporting, this problem was circumvented by dividing the operating expenses into direct opex and indirect opex which included the corporate overhead allocation and any service fees. The goal of this change was to make reporting more transparent and bring visibility into what the business line heads could have direct impact over, what was taxed on them from group side and how much they paid for services provided by other businesses and strategic sourcing oversight.

> *We were fixing the aforementioned issues [too detailed and ambiguous reporting]. To increase transparency and make it more simple by taking some of the aspects away that were causing resentment. (CFO)*

While the managers did not explicitly highlight any difficulties in understanding the allocations, the Telecom manager highlighted that it was only after the second change that he really understood where the costs were coming from and who was responsible for them.

> *It was much clearer. At that point I understood what expenses I had in China. How much was HR (Human resources), how much was transportation (employees) and so forth. Only at this point I saw what the China organization cost was. Before this, it was allocated to different responsibility areas and you could never get to the details. […]. Now I could ask China directly, what does this cost? How is this handled? Before that it was like, is this operations managers responsibility? Where is the answer going to come from? There was the possibility that the person you ask misunderstands and you get a different answer. When you get to the details and see that wow, picking up from the airport costs this much or our offices in Suzhou cost this much or Wuxi costs this much. This way you can much easier see what the cost is made of. (telecom business line manager)*

Therefore, in the previous structure and reporting, managers had difficulties understanding the where the costs were coming from, what the costs were related to and who in fact was responsible for them. As such, one of the main goals of the second management accounting change was also to simplify reporting and make it more transparent as the ambiguities of the previous management accounting was standing in the way of the goals of increased profit accountability and achieving cost savings.

The reversal of the matrix structure and the initial management accounting could be interpreted as a failure of the change attempt. However, while all the goals of the change were not achieved resulting in abandoning the matrix structure and implementation of the business unit structure, the management highlighted that the change was successful in bringing the desired visibility.

> *These changes helped to increase the visibility what the business is in different lines and in concrete terms, it helped us to understand what is the situation in Finland for Telecom and systems and also in Italy what the situation is for led*

drivers and power supply businesses as well as what is their relation in terms of profitability. It did not solve the problems but it did give us the visibility that we wanted and this provided the basis on top which we actually started to build the strategy how to move forward from this. This also resulted in decision to divest the telecom business and realization that systems can be a good business but is simply too small currently. Therefore, it was an integral part of creating a plan to fix this company. (CFO)

We did progress to the right direction but one hinderance was that the business line heads did not have much experience from running a business and what it means to comprehensively run a business. If they had more experience from that, this could have worked out better. We did get cost saving but did we get enough savings is another question. (CEO

While the management felt that there was progress made, they felt that it was not enough. However, the accounting change did give them the visibility that they needed in order to make, plans for the future. It helped them understand what these businesses are and to formulate a strategy based on that. In support of this view, the corporate management decided to strengthen the Systems business by investing in PN and combining these two, keep Italy as one business unit instead of dividing and possibly divesting or shutting down part of it as well as divesting the Telecom business. Therefore, it can be seen that the management accounting change was an integral part of going forward.

The benefits of the increased visibility from the reporting was further highlighted by the systems business line manager:

It brought the visibility that someone has to do that work but organization wise and geographically Italy was not a wise choice as they didn't do it. They invoiced it but obviously they cannot manage Estonia from Italy. They don't know them, they don't understand it. It didn't make things better but it brought the cost structure to the right level. Even now, someone is responsible for sourcing and subcontractor operations and now it is in right place the cost. It was part of the illusion that systems business is very profitable as there were no sourcing costs and no module level R&D cost. Instead there was only an engineer team and sales. It looked very flexible, cheap, efficient and makes a good margin but this is as I said what illuminated that it actually doesn't perform, or the break-even is larger and per sales person it should sell more. Or does it even scale up, will the engineering get clocked up next. All of this became visible. (systems business line manager)

While highlighting that the operations were not able to support the business in the way that business saw necessary, the Systems manager highlighted that the allocation of costs revealed the support the business needed and how much it costs. Therefore, it brought visibility what the cost structure should be for the business. The systems business had been viewed very profitable in prior structures as it had only the direct costs of sales and engineering teams while missing the cost for operations, product development and administration support that it needed and was receiving. By allocating these costs to the business line, it did not look as profitable as it had used to resulting in the manager questioning whether the business is viable with current level of sales margin percentage and net sales as well as whether net sales could be scaled up without equal increases in personnel cost. However, the corporate management still viewed systems as a viable and scalable business through getting synergies working within PN structure and therefore decided to invest in the business.

In the end, the management accounting change can be viewed successful and unsuccessful. In addition to earlier pointing out that in order to for the changes to have been more successful the pre-existing systems should have been "blown up" and replaced by a comprehensive company-wide system, the CEO also stressed that it would have considerable aided the change effort if the company could have provided the managers with incentives based on the new indicators. However, this was not possible due to the decreasing profitability and financial constraints.

> *Also when you implement new indicators, it significantly helps if you can use carrot and stick simultaneously. Then you can use them to challenge but also reward performance. When reporting is developed and changed, and there are new figures, their acceptance and use is wider if you get even a small reward for good development. This we could not do because our figures were going the wrong directions. (CEO)*

5 Case analysis and discussion

The management accounting change in in the case company was accompanied a change in company structure and lines of accountability. Due to the nature of overall change and its goals, the MAC and organizational change are inherently entangled to one another and need to be studied simultaneously. This was further highlighted by the CEO who argued that the MAC and structural changes were 50/50 in importance, if not the MAC being the dominant change as the change was motivated by need for increased visibility. This argument is fully in line with Hopwood (1990) suggestion that in relation to organizational change, management accounting plays three major roles which are: making things visible that otherwise wouldn't be, making abstract things appear real and creation of economic domain of action. From these, especially the visibility created by management accounting was a key factor in the overall change effort.

The following section will analyze and discuss the findings of the case using Kasurinen (2001) change model and other literature presented earlier.

5.1 Analysis using the Kasurinen (2002) change model

Innes and Mitchell (1990) have identified three sets of factors based on their nature and timing in driving MAC. These are motivators that are influencing the change in general manner, facilitators that are the necessary underlying conditions, and catalysts that are directly related and happen in close proximity to the change (Innes and Mitchell, 1990). In addition, leaders are required to overcome the barriers maintain momentum of change (Cobb et al., 1995). Finally, the barriers to change are further classified as frustrators, confusers and delayers (Kasurinen, 2002).

5.1.1 Motivators, catalysts and facilitators

Between 2012 and 2016, the company had been recording considerable losses year by year. In line with Munir et al. (2013), the financial situation had already motivated the move to a functional structure as well as resulted in multiple changes in company leadership. Majority of the losses were coming from the telecom business that was losing out to competitors in project quotations for the major Telecommunication clients resulting in an 'ageing product portfolio' Kasurinen (2002) of which many products were phasing out. While the financial situation itself was a general motivator for the MAC and structural change, it was to a large part caused by 'increased competition' in the market as suggested by the literature (Innes and Mitchell, 1990; Cobb et al, 1995; Kasurinen, 2002; Munir et al, 2013).

At the time when the CEO joined the company, there was a perceived lack of accountability especially in terms of financial accountability for profit and loss. In the functional structure it was perceived too easy to transfer accountability to someone else and there was a feeling that the managers were not in fact not held responsible for their performance. The company also had a culture of focusing extensively on sales margin to justify whether a business is profitable or not regardless of the fixed expenses involved. Therefore, the corporate management wanted to extend the managers accountability to EBITDA. In addition, the company had not had a culture of regarding NWC as being important, instead the extensive focus on sales margin was partly driving higher level of inventories due large MOQ's. However, as the company had been unprofitable for multiple years, reduction in tied in capital was seen to be crucial and the management felt it was necessary to include NWC into business line accountability. As such, the perceived lack of accountability for profitability and NWC were influential motivators of the change. Lack of financial accountability has been influential motivator of MAC in multiple studies (see for example: Siti-Nabiha and Scapens, 2005; Nor Aziah and Scapens, 2007; Busco et al., 2011)

Even though the functional structure had not been in place for long, the company had lost visibility into the profitability of the businesses. However, the top management had come to the conclusion that the functional structure was not in place and wanted to regain the visibility into how the company actually operates. Therefore, in line with Vaivio (1999), the lack of visibility and need to understand of how the company works was a key motivator for the accounting change.

The change effort was initiated by the CEO after he joined the company in 2016. His appointment was a major catalyst for the MAC while he also became the leader of change supporting the dual role of leader and catalyst as suggested by prior studies (Valuckas, 2018; Munir et al. 2013). As he came in, the CEO concluded that the company was lacking in terms of accountability towards profitability as well as tied in capital. In response to the difficult financial situation, initially the CEO focused on outsourcing the production in China as a priority. However, the company was still in a tight financial position after the outsourcing and liquidity as well as future profitability had become important due to the extensive losses made in 2016. Therefore, creation of business lines with profitability accountability and especially the introduction of NWC as an important indicator was catalyzed by the increasingly tight financial position of the company. Similarly, increasingly tight financial situation and losses have been found to catalyze projects by multiple studies (Innes and Mitchell 1990; Vaivio, 1999; Munir et al. 2013).

Prior to the functional structure, the company had been operating in a business unit structure. Moreover, the functional structure had only been in place a short time and had not been internalized. Therefore, the change to a matrix structure largely followed the pre-existing hierarchical structure in the company and as such, the change was facilitated by the actual structure of the company. Secondly, during the functional structure, the company had introduced unified reporting in the form of profitability report and expense reporting. This reporting served as base to build the new business line reporting. Without the pre-existing unified reporting, the company would have had to start from scratch which could have hindered the change and as such, the pre-existing reporting was a facilitator of MAC. Finally, the responsibilities in the new structure were designed deliberately in a way that the managers that held a central position would be given a central position in the new structure. This can be seen as a conscious attempt to alleviate resistance to the change and as such, a facilitator that had been put in place by the leader of change as suggested by Munir et al., (2013).

5.1.2 Leaders and momentum

The importance of leaders in management accounting change has been highlighted extensively in literature (Cobb et al., 1995; Vaivio, 1999; Kasurinen, 2002; Liguori and Steccolini, 2011; Jansen, 2011; Munir et al., 2013; Valuckas, 2018). In line with literature, the leaders had a central role in the MAC. In this case, there were two clear leaders of the change, the CEO and CFO. The role of the leaders for initiating and leading the change were crucial and the change would not have taken place without them. In addition, the CEO had a central role in putting in facilitators place (Munir et al, 2013) and served a dual role as leader and catalyst of the change (Cobb et al 2013).

Jansen (2011) and Liguori and Steccolini (2011) suggest that transformational leadership is more effective when undertaking radical, revolutionary MAC that deeply challenges the existing ways of doing things. Due to the nature of research, it’s difficult to observe the type of leadership present in the case in practice. However, the leadership style included multiple elements of transactional leadership. For instance, the goal of the MAC was to increase profit accountability and the corporate management were managing profitability through management by exception using budgets. In addition, the managers were mainly held responsible for results at EBITDA and NWC level while they were allowed to choose the methods how to achieve the results themselves indicating less active role in implementing changes by the leaders. Moreover, the management felt that the change attempt would have been aided by possibility to introduce incentives which is also a distinctive feature of transactional leadership as argued by Jansen (2011).

However, in line with literature suggesting that communication is key to successful revolutionary change (Yazdifar et al. 2008) and an important characteristic of transformational leadership (Jansen, 2011; Liguori and Steccolini; 2011), the change leaders were also actively communicating and teaching the significance and meaning of the MAC as a whole while especially concentrating on the net-working capital. Therefore, the management style presented also transformational leadership features as well. However, despite the communication and teaching, the management felt that enough progress had not been made in getting the managers to understand and accept the meaning of especially NWC suggesting that transformational leadership alone is not enough. Instead, the management highlighted that incentives based on performance, which are a feature of transactional leadership, would have produced better results. Therefore, this study suggests that in some cases, it is rather the combination of the two that could lead to a more satisfactory outcome.

In line with Vaivio (1999) and Liguori and Steccolini (2011), the approach by the management was systematic and coordinated as the change was clearly planned defined and pushed forward with continuous effort. The business line management were held accountable and pushed to increase their performance based on the results provided by new MAS. However, in 2018, the corporate management had multiple simultaneous projects that needed their attention. This led to the management concluding that there were more important priorities and therefore made no sense to continue to push the change attempt further. While Kasurinen (2001) and Valuckas (2018) highlighted the removal of the change leader, in this case it was rather the shifting priorities of the change leaders that resulted in systematic and coordinated push breaking up. However, this further supports the general consensus in the literature that leaders are crucial for successful MAC.

While serving as catalysts and setting up facilitators, the leaders of change were integral in creating momentum for change as suggested by literature (Cobb et al, 1995; Munir et al., 2013). In addition to the management accounting and structural changes taking place, the company was also undertaking many simultaneous projects such as outsourcing production, rights offering, divesting Telecom business and acquiring PN. However, while these multiple overlapping projects can be seen as evidence of momentum for change, it was in the end directed more towards these projects rather than the accounting change in question. Therefore, the MAC and structural changes were in fact creating momentum for other changes in the company which in turn ended up consuming the momentum from the management accounting change.

The literature and accounting change model mainly highlight the importance of leader and momentum for change. However, Granlund (2001) study shows that there can be a leader and momentum of stability and in the case company, this could also be observed. The business line manager in Italy resisted multiple aspects of the changes and effectively shielded his organization from the accounting and structural changes from having desired managerial and operational effects. Therefore, he could be viewed as leader of stability and he could be seen maintaining the momentum for stability counteracting the momentum for change.

5.1.3 Resistance and Barriers

The MAC was an attempt to increase financial accountability and extend it to include profitability until EBITDA. However, instead of implementing a business unit structure, the management opted for matrix organization and allocating the global function in order to gain synergies while producing EBITDA level profit and loss for business lines. Through allocations, the corporate management wanted to motivate the business line managers to influence the costs and services provided by the support functions.

However, as suggested Scapens and Roberts (1993) and Merchant and van der Stede (2017), this change was resisted by the managers as they felt that they were being held accountable for something that they cannot influence. The top management saw the resentment originating from lack of experience working in a matrix organization as well as some managers and employees being accustomed to working in a strictly hierarchical organizational structure and culture where everything needs to be under direct control to the extent that it had become ‘taken for granted’ way of working (Burns and Scapens, 2000). Furthermore, similarly to Nor-Aziah and Scapens (2007) who found conflicting operational and financial targets to hinder the change, the company was lacking results-oriented culture and emphasized R&D as well as customer service orientation that was seen to be conflicting with the aims of financial accountability. Therefore, from corporate managements' point of view, the lack of experience working in a matrix organization and the organizational cultures can be viewed as influential frustrators. This finding is in line with literature findings highlighting lack of capability or experience (Burns and Scapens, 2000) as well as organizational culture (Kasurinen, 2002; Busco et al. 2011; Wahiyudi, 2009) and taken for granted assumptions of how things should be done and how things are (Burns and Scapens, 2000) as important factors hindering MAC attempts when the change is not congruent with existing culture and taken for granted assumptions.

Management accounting change is often perceived differently by different employee groups as for some it's a possibility while for some it's not desired nor welcome (Kasurinen, 2002). While corporate management consciously tried to limit resistance from losing power by giving them all a central role, it became clear that for the Digital Light and Digital Power manager who had maintained the role of CEO of SPA since the acquisition regardless of the official structure, was to lose this direct control. While the resistance was directed towards being held accountable for costs and NWC that the manager cannot control, the resistance was at least partly stemming from losing power to the global functions as shown by literature (see for example, Scapens and Burns, 1993; Nor-Aziah and Scapens, 2007). The power struggle between the business lines and global functions and the effective 'use of power' by the manager to resist the change (Granlund, 2001; Nor-Aziah and Scapens, 2007) was a significant frustrator for the structural changes and increased financial accountability along the chosen key indicators.

Since the acquisition, the SPA group had not been implemented into the group. The management of the SPA was very protective of the subgroup and any group interference was seen as a threat to their autonomy. The new MAS was to create a 'visibility' (Hopwood, 1990) into the SPA organization by dividing the Digital Power and Digital Power business lines in terms of profitability and NWC. This visibility was viewed as a threat as it could reveal some operations to be unprofitable as suggested by literature (van der Steen, 2009; Munir et al., 2013; Cobb et al., 1995). Moreover, there was a fear that through gaining visibility, the corporate management could make decisions based on the results of the new MAS past the local management of the SPA and therefore violate their autonomy. In line with literature (Scapens and Roberts, 1993; Nor-Aziah and Scapens, 2007), the fear of losing autonomy and the resulting protectionism was a significant frustrator of the MAC.

The company had very fragmented information systems and the business line reporting was very manual and time-consuming process. The monthly reporting was usually finished only half-way through the month by which time the finance department had run out of juice and as such, any actions taken on the results were inevitably reactionary and analysis as well as support from finance was insufficient. As the management lacked experience in using financial information and the financial capabilities were centralized to top management and accounting department (Liguori and Steccolini; 2011), they would have needed more support from finance department in understanding and using the information for decision making. Due to the time lack created by insufficient systems and centralized technical abilities, as suggested by Scapens and Burns (1993), the new MAS did not meet the local requirements of the business line managers. Therefore, in line with Yazdifar et al., 2008, they continued to use and request the pre-existing informal local reporting that they had become accustomed in order to fill the gaps. In addition to creating double work for the finance department, by relying on and upkeeping pre-existing reporting, the business line management was in effect 'barring' (Burns, 2000) the MAC from reaching the lower levels of the organization. As such, the MAS did not have the managerial and operational impacts that had been desired and in effect became decoupled from actual working activities (Yazdifar et al., 2008; Lukka, 2007; Siti-Nabiha and Scapens; 2005). Therefore, the inadequate information systems and doing things as they always have been done were major frustrators of the MAC.

The management wanted to create visibility into what the business lines actually are and how they contribute to the profitability of the group. They highlighted that the purpose was to make a strategy of going forward which could include investing into certain businesses or possibly divesting businesses that are not viewed as part of the future of the group. However, many of the business line managers suspected that the primary purpose of the MAC was to create calculative entities that could be eventually carved out and divested. Therefore, in line with literature (Johansson and Baldvinsdottir, 2003; Nor-Aziah and Scapens, 2007; Busco et al, 2006; see also Burns and Scapens, 1993), there was a lack of trust in the intentions of the corporate management and the officially communicated goals of the change and the MAS. The differing view of the purposes of MAC created confusion among employees and can be interpreted as a major confuser of the change.

In 2018, the management had multiple overlapping projects that required their attention and as such, had reached the conclusion that the global operations had not been produced the desired benefits. Therefore, the focus on the MAC reduced and momentum was halted. By the end of the year, the management had come to the conclusion that pushing the matrix organization and the global functions forward was not feasible at the time due to other priorities. Therefore, as suggested by Vaivio (1999), the management decided to revert back to a business unit structure while maintaining some strategic operations support and a reduced group function. In line with literature findings, introduction of multiple initiatives (Munir et al., 2013) and shifting priorities (Cobb et al. 1995) create confusion among employees and as such, can be viewed as confusers of MAC.

As the organizational structure was a matrix, the costs of global functions were allocated to the business lines in order to produce business line profitability. The allocations were very detailed and updated on monthly basis in a way where direct costs and indirect costs were mixed together. This created a situation where costs were constantly shifting and tracking them was difficult. As a result, when questioned about their costs, the business line management could not give answers as the costs and their origins were ambiguous and unclear. One of the main goals of the MAC had been to make the managers accountable for their profitability and make decisions such as cost savings to improve their profitability. However, the ambiguous nature of the reporting led to a situation where the managers did not have a clear view of what the costs actually were, where they came from and who was responsible for them. Therefore, this ambiguity of the cost allocations was a confuser for the business line managers.

The top management concluded that the change had been successful in creating visibility and highlighted that this understanding served as the basis for creating a plan to go forward. However, simultaneously, the management felt that while progress had been made in increasing accountability for profitability and tied in capital, these goals had largely not been met. As such, MAC can be seen successful and unsuccessful at the same time (Liguori and Steccolini, 2011; Malmi, 1997). Moreover, from corporate management point of view, the progress in accountability was too little too slow. Reflecting on the changes, the CEO suggested that the changes would have sunk in faster and more effectively if the company could have provided incentives for the business line managers for reaching targets. However, due to the falling profitability and financial position of the company, this was perceived not possible. When analyzing the MAC in terms of its goals, not being able to provide incentives can be viewed as a delayer as it slowed down and hindered achievement of the goals of the MAC.

5.2 Further discussion

The MAC was motivated by external pressures such as competition in the market and resulting falling in demand. Much of the research in MAC have highlighted external pressures such as competition (Innes and Mitchell, 1990; Cobb et al., 1995; Burns, 2000; Munir et al., 2013) and attempts to gain legitimacy (Siti-Nabiha and Scapens 2005; Dillard et al., 2004) as the driving reasons to change MAS. However, while external pressures were present in this case through competition and resulting fall in profitability, they weren't as prominent as suggested by the much of the literature. It was rather the need to gain visibility and understanding of how the company operates as suggested by Vaivio (1999) as well as the perceived lack of accountability that served as the primary motivators of MAC.

In line with Vaivio and Burns (2001), management accounting change did not follow a linear course. Even though the management suggested that the management accounting and structural changes panned out as originally planned indicating that the move to the eventual business unit structure was the plan in the first place, it seems likely that there was a real attempt to make the matrix organization work and try to get the benefits of having a global functions while assigning profit and loss accountability through allocations. However, these changes encountered multiple barriers and were variably resisted leading to an outcome other than intended. Therefore, as suggested by literature, the accounting change was influenced by external pressures but was frustrated, filtered and shaped by internal dynamics of the organization (Vaivio, 1999; Valukas, 2018; Siti-Nabiha and Scapens, 2005; Liguori and Steccolini, 2011; Granlund; 2001; see also Scapens and Roberts, 1993)

At first glance, the management accounting and structural change from functional organization and reporting to business line organization and reporting seems to be a 'revolutionary' change (Burns and Scapens; 2000). However, through understanding the 'historical circumstances' of the company (Burns and Scapens, 2000), it can be understood that the functional organization was short lived and had only existed on paper and the actual organization was instead a business unit organization and as such, the functional reporting was 'decoupled' (Lukka, 2007; Siti-Nabiha and Scapens; Nor-Aziah and Scapens; 2007) from the actual structure of the company. Therefore, the actual revolutionary changes were in fact the attempt to form a truly global operations and administration functions, splitting Digital Power and Digital Light as well as extending accountability to include allocated costs and NWC. As suggested by Burns and Scapens (2000), it was the revolutionary changes that were the most resisted and difficult to achieve.

Burns and Scapens (2000) argued that evolutionary changes are likely to be easier to implement as they do not require fundamental challenging of how things are done and should be done. In support of this argument, the study shows that as the reporting itself was built on top of existing group reporting, it can be viewed as evolutionary and as such, received little resistance from accounting department. However, while the building on existing reporting facilitated the change, the resulting reporting was not optimal as it took considerable time to complete and allowed other informal pre-existing reporting to persist and as such, ended up becoming a frustrator in itself. This observation is in line with Yazdifar et al. (2008) finding that MAS that does not serve the needs of the organization, managers rely on other sources of information. In the end, the new MAS itself was mainly 'symbolically' accepted (Burns, 2000) and became somewhat 'decoupled' from actual daily activities (Lukka, 2007; Siti-Nabiha and Scapens, 2005; Nor Aziah and Scapens). Therefore, while evolutionary change might be easier to achieve, it can lead to a suboptimal outcome that does not have the desired managerial effects.

Scapens and Roberts (1993) and Granlund (2001) highlight that while resistance to accounting change may seem irrational, there often are real concerns over the change and resistance could be therefore viewed rational from the employees point of view. In the case, the management accounting change encountered resistance and barriers on multiple levels. In line with literature, there was resistance to losing power, autonomy, being held accountable for costs that are not in direct control. However, as suggested by Scapens and Roberts (1993) as well as Granlund (2001), there were real underlying concerns over the new MAS and structural change. Firstly, while the management saw the resistance to the cost allocations rising from lack of experience working in matrix organization and hierarchical organizational culture, the business line managers felt that they had tried to influence the expenses and NWC but could not do anything about them.

Secondly, the corporate management wanted to divide the former SPA into two business lines as they were viewed separate businesses. The corporate management suggested that the resistance to the change was originating from corporate intervention being viewed as a threat to their autonomy. However, these businesses shared most of their resources and separating them could have led to duplication of effort and inefficiency. While this was avoided through the use of allocations, there was a fear that this would become more permanent and could result in a business being divested. Eventually the corporate management decided to combine these business lines back into one business unit and as such reverted back to prior practices as suggested by Burns and Vaivio (2001).

Finally, in the move to the business unit structure, the global operations was dismantled as the corporate management felt that the benefits had not be realized and synergies were not feasible at the time. However, the global operation resisted the dismantling of global operations function as they felt progress had been made and this would lead to duplication of effort as well as reduced negotiation power. Therefore, in all of the above sources of resentment and resistance, the management had legitimate concerns over the changes made and raising these concerns was rational from their point of view as suggested by literature (Burns and Scapens, 1993; Granlund, 2001).

Burns and Scapens (2000) suggest that stability and change can co-exist. Lukka (2007) and Nor-Aziah and Scapens (2007) brought forward that this co-existance occurs through loose coupling of formal MAS and actual organizational practices. While such loose coupling can be observed in the case study, the findings point more towards Nor-Aziah and Scapens (2007) findings that this loose coupling was a result of stability caused by resistance rather than Lukka (2007) suggestion that loose coupling could be a solution to allow simultaneous stability and change. After all, the stability caused by resistance and barriers hindered achieving many of the goals of the change. Moreover, in line with Granlund (2001), stability and change could be viewed as opposing forces in the change attempt and as the inertial forces accumulated and advancing forces waivered, the change effort was halted as shown by moving into the business unit structure. In addition, the case revealed that there was clear momentum for stability as well as a leader for stability.

Finally, while the MAC did not achieve all of its goals with regard to cost savings, synergies and increased accountability, it should not be viewed unsuccessful. In fact, the new MAS created visibility into the organization. The results of the MAS then were used as the basis for making a strategy going forward. Therefore, in line with Liguori and Steccolini (2007) and Malmi (1997), the change effort could be viewed successful and unsuccessful simultaneously.

5.3 Stability and re-evaluating the Kasurinen (2002) change model

The Kasurinen (2001) change model provides structure for analyzing management accounting change. It is useful in identifying the advancing forces based on their nature, timing and influence. It also accounts for momentum for change and agency through recognizing the importance of leaders in the change effort. In addition, it recognizes the barriers of change and helps to categorize them into confusers, frustrators and delayers which provides further insight into the nature of the hindering forces. Furthermore, as the change effort marches forward, as suggested by Munir (2013), the initial barriers can become advancing forces for future change. This was also supported by this study as the perceived problems with allocations was initially a barrier but ended up being a motivator for subsequent MAC. Therefore, the model is useful in analyzing MAC as a process that is variably advanced or hindered by different factors and where these factors can change places within the model over time.

However, while the model provides a comprehensive and holistic understanding of processes of change, it only recognizes the role of stability through the barriers to change. In line with Granlund (2001), this study provides evidence towards viewing stability and change as opposing forces as well as indicates that in addition to momentum and leaders of change, there can be a momentum and leader of stability. It is this stability that could be better incorporated in the model. Therefore, the model is modified to include leader and momentum of stability as opposing force to the advancing forces of change.

In addition, the Kasurinen (2001) change model directs the user to view management accounting change as a top down effort where change is initiated and driven by top management and lower levels of organization are on the receiving end. By incorporating stability through momentum and leader of stability, the model takes the viewpoint of the employees better into account as the strive for stability and resistance to change were employees reaction to change. The revised Kasurinen (2002) model is illustrated below.

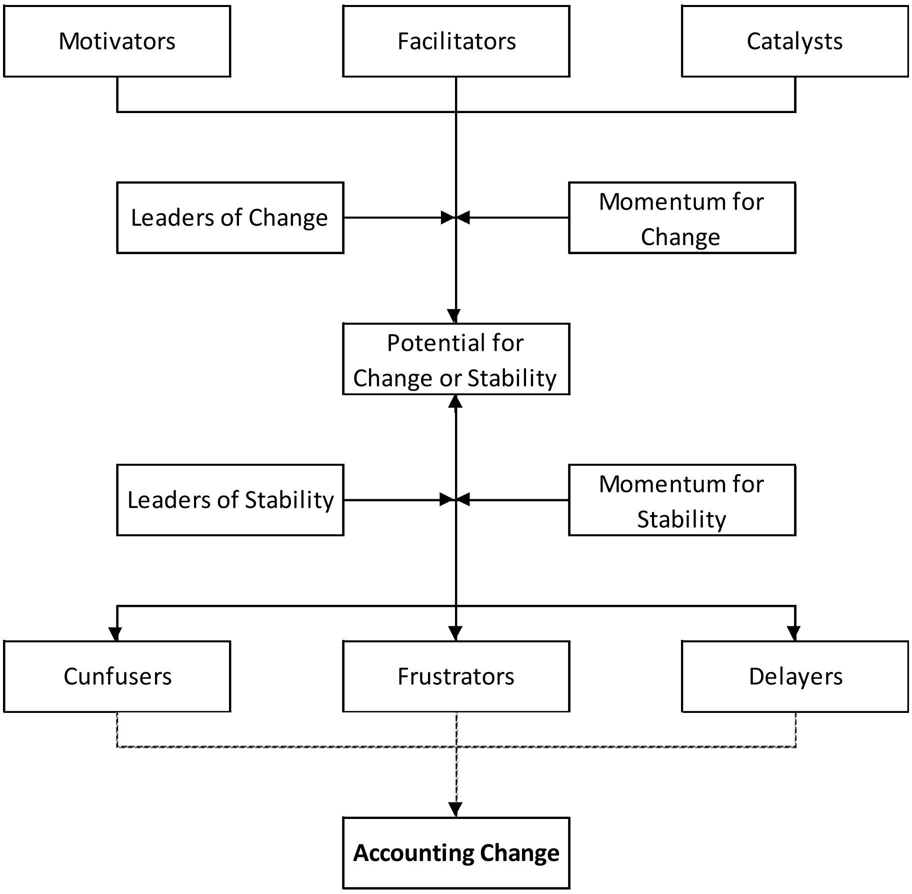

Figure 4. Revision of Kasurinen (2002) model

6 Conclusions

This thesis set out reveal how management accounting change has unfolded as a process in the target company and answer the call for more in depth studies exploring resistance to management accounting change and stability of management accounting systems. The thesis has applied the Kasurinen (2002) change model as the main theoretical framework and means to analyze MAC as a process. In addition, the aim of the thesis was to test the model and possibly expand it to better take resistance and stability into account.

In line with objectives and literature, the thesis has revealed a rich account of management accounting change as a process which has been variously affected and frustrated by internal dynamics of the organization. However, while literature emphasized the importance of external pressures in initiating management accounting change, in this case it was rather the perceived lack of accountability and visibility which were the main motivators of the change effort. Furthermore, the thesis has added to the understanding of barriers and resistance to change through finding support to sources of resistance such as threat to autonomy, power distribution, culture, inadequate systems, being held accountable for things not under control, lack of ability and experience as well as adherence to old ways. In addition, the thesis provided further evidence that the barriers and resistance to change contributed to the stability of the system and this stability can be viewed as a counter force to forces of change.

While much of the resistance could be interpreted to be also the result of the organizational changes, this study argues that this resistance was largely attributable to, and intensified by, the increased and altered visibility created by the new system. In line with Hopwood (1990), it was the making things visible that otherwise wouldn't be, making abstract things appear real and creation of economic domain of action coupled with accountability for the results that contributed to the resistance most significantly. This visibility allowed the management to understand how different parts of the company were performing and what they were in economic terms, in effect giving calculative shape to the organization and its structures for which managers could be held accountable for. However, for some of the managers this visibility was a threat and therefore, the visibility created by the system became the most significant source of resistance.

The study also provided further evidence on the usefulness the Kasurinen (2002) model in gaining comprehensive and holistic understanding of management accounting change while further supporting the importance of change leaders. Moreover, the study contributes to the accounting literature and to the model by connecting sources of resistance highlighted by the literature to the barriers in the model, thereby expanding the understanding of the barriers within the model. However, the main contribution of the study to MAC literature is the suggested inclusion of leaders and momentum for stability into the Kasurinen (2002) model as this better represents the countering forces of change and stability and takes more comprehensively into account the viewpoint of the employees.

6.1 Limitations

The findings of the thesis are based on a single case organization and as such, are not statistically generalizable. Moreover, the findings are tied to the context of the organization and therefore, contradictory findings could be found in different organizational setting. In addition, the thesis has suggested a revised version of the Kasurinen (2002) change model by incorporating leaders and momentum of stability into the model. However, as the suggestion is based on findings from a single organization, the revised model would need to be tested through further research in another setting.

The events in the thesis have taken place between 2016 and 2019. Therefore, the case study is based on recollection of the interviewees of how these events have transpired at the time. As such, it’s possible that the interviewees have forgotten important events or their perceptions might have been altered by events taking place later as well as outcomes of the studied phenomenon. Moreover, as the interviewees are employees of the company and it needs to taken into account that they consciously or unconsciously misrepresent their recollection of events in order to appear in more favorable light or refrain from presenting views that could be harmful to them. In addition, as the single case study is a snapshot into the organization, the researcher can only comment on prior events through using other materials such as press releases, annual reports and internal documents. Furthermore, the researcher cannot comment on how the change effort has continued to progress evolve after 2019.

Finally, as the researcher has been employed by company for multiple years and has witnessed as well as participated in many of the events, the observations of the researcher are inevitably affected by his own recollection of events as well as his personal biases and opinions. In addition, being knowledgeable of the events and phenomenon prior to the study could have led the researcher to unconsciously follow a pre-determined path and not be sensitive to contradictory evidence or even discard such evidence as it arises.

6.2 Future research

This thesis has suggested that leaders and momentum of stability should be included in the Kasurinen (2002) change model. The researcher argues that this would better take into account the stability of MAS, change and stability and as countering forces, as well as the employees view on the change. However, as stated earlier, this suggestion and these arguments are based on a single case study that is tied to the context of the case organization. Therefore, the researcher proposes that future research utilizing the revised model should be conducted to verify its applicability and usefulness.

Kasurinen (2002) argued that the change model could be useful for practitioners in identifying the advancing and hindering forces of change at early stages of the change effort. This led to Kasurinen (2002) proposing that future illustration of use of the model in early stages of the project needs more illustration. However, such studies have yet to be conducted. This thesis found the Kasurinen (2002) model to be very useful in directing the research to identify and classify advancing and hindering forces of change. Therefore, in line with Kasurinen (2002), the researcher argues that application of the model in early stages of the project could have helped the management to identify and circumvent potential barriers. However, as this thesis was conducted after the change had taken place, it cannot provide further support for these arguments. As such, the researcher repeats Kasurinen (2002) call for future research to conduct studies to illustrate the use of the model in early stages of the change effort.

6.3 Managerial recommendations

Management accounting systems and have been shown to present considerable stability by literature and this thesis. While management accounting systems provide a particular visibility into the organization and create calculative boundaries for which employees can be held accountable, any effort to change these systems are likely to run into resistance and barriers. Therefore, the management planning an accounting change should carefully consider the potential barriers and employee reactions prior to the change effort and put in facilitating factors. In addition, the management should make sure that adequate leaders can be assigned for the change and provide them with continued support in order to maintain momentum and successfully implement the change. The process of identification and classification could be helped by applying the Kasurinen (2002) model or one of its revisions.

Furthermore, as this case revealed, the state of the information systems is an important factor to consider when undertaking similar change efforts. To successfully execute a similar project, in it may be necessary to ‘blow up’ or the current systems and implement a new comprehensive and unified system as suggested by the CEO. This could also work towards forcing the employees to use the new system and abandon old practices that hinder the acceptance of new ones. Finally, the management should critically evaluate whether the new system actually is adequate or even appropriate for the company. As suggested by literature and to some extent shown by this thesis, the new system implemented might not always be positive progress and resistance to implementing it could be rational as well warranted.

References

Ahrens, T. and Dent, J., (1998), Accounting and organizations: realizing the richness of field research, Journal of Management Accounting Research, 10, 1–39.

Alsharari, N.M., Dixon, R. and Youssef, M.A.E.-A. (2015), "Management accounting change: critical review and a new contextual framework", Journal of Accounting and Organizational Change, Vol. 11 No. 4, 476-502.

Burns, J. & Vaivio, J. (2001) Management accounting change. Management Accounting Research, 12, 389-402.

Burns, J. (2000), "The dynamics of accounting change: inter-play between new practices, routines, institutions, power and politics", Accounting, Auditing and Accountability Journal, Vol. 13 No. 5, 566-596.

Burns, J. and Scapens, R.W. (2000), "Conceptualizing management accounting change: an institutional framework", Management Accounting Research, Vol. 11 No. 1, pp. 3-25.

Busco, C. and Scapens, R.W. (2011), "Management accounting systems and organisational culture: interpreting their linkages and processes of change", Qualitative Research in Accounting & Management, Vol. 8 No. 4, pp. 320-357.

Busco, C., Quattrone, P. and Riccaboni, A. (2007), "Management accounting: issues in interpreting its nature and change", Management Accounting Research, Vol. 18 No. 2, pp. 125-149.

Busco, C., Riccaboni, A. and Scapens, R.W. (2006), "Trust for accounting and accounting for trust", Management Accounting Research, Vol. 17 No. 1, 11-41.

Cobb, I., Helliar, C. & Innes, J. (1995) Management accounting change in a bank. *Management Accounting Research*, 6, 155-175.

Dillard, J.F., Rigsby, J.T. and Goodman, C. (2004), "The making and remaking of organization context: duality and the institutionalization process", Accounting, Auditing and Accountability Journal, Vol. 17 No. 4, 506-542.

Granlund, M., 2001. Towards explaining stability in and around management accounting systems, Management Accounting Research, 12, 141–166.

Hardy, C. (1996), “Understanding power: bringing about strategic change”, British Journal of Management, 3-16.

Hopwood, A. G. (1990) Accounting and organizational change. Accounting, Auditing and Accountability Journal, 3, 7-17.

Innes, J. and Mitchell, F., 1990. The process of change in management accounting: some field study evidence, Management Accounting Research, 1, 3-1 9.

Jansen, E.P. (2011), The effect of leadership style on the information receivers’ reaction t management accounting change, Management Accounting Research, 22, 105–124

Johansson, I.L. and Baldvinsdottir, G. (2003), “Accounting for trust: some empirical evidence”, Management Accounting Research, Vol. 14 No. 3, pp. 219-234.

Kasurinen, T. (2002) Exploring management accounting change – the case of balanced scorecard implementation. *Management Accounting Research*, 13, 323-343.

Liguori, M. and Steccolini, I. (2012), “Accounting change: explaining the outcomes, interpreting the process”, Accounting, Auditing and Accountability Journal, Vol. 25 No. 1, 27-70.

Lukka, K., 2007. Management accounting change and stability: loosely coupled rules and routines in action. Manage. Acc. Res. 18, 76–101.

Malmi, T., 1997. Towards explaining activity-based costing failure: accounting and control in a decentralized organization, Management Accounting Research, 8, 459–480.

McKinnon, J. (1988). Reliability and validity in field research: Some strategies and tactics. Accounting, Auditing and Accountability, 1(1), 34-54.

Merchant, KA. and Van der Stede, WA., (2017). Management Control Systems 4th Edition: Performance Measurement, Evaluation and Incentives, Pearson Education Limited.

Munir, R., Baird, K. and Perera, S. (2013), “Performance measurement system change in an emerging economybank”, Accounting, Auditing and Accountability Journal,Vol. 26 No. 2, 196-233.

Nor-Aziah, A.K. and Scapens, R.W. (2007), “Corporatisation and accounting change: the role of accounting and accountants in a Malaysian public utility”, Management Accounting Research, Vol. 18 No. 2, 209-247.

Parker, LD. (2012), “Qualitative management accounting research: Assessing deliverables and relevance”, Critical Perspectives on Accounting Vol. 23, No. 1, 54-70.

Quattrone, P. and Hopper, T. (2001), “What does organizational change mean? Speculations on a taken for granted category”, Management Accounting Research, 12, 403–435.

Quinn, M. (2014), “Stability and change in management accounting over time: a century or so of evidence from Guinness”, Management Accounting Research, Vol. 25 No. 1, pp. 76-92.

Scapens, R. W. (1990). Researching management accounting practice: The role of case study methods. The British Accounting Review, 22(3), 259-281.

Scapens, R. W. and Burns, J., 1996. The Institutionalization of Accounting Routines: Ferac International, published in the Annual Collection of Wards Trnst Seminar Papers, Glasgow University, vol. 1.

Scapens, R. W. and Roberts, J., 1993. Accounting and control: A case study of resistance to accounting change, Management Accounting Research, 4 (4), 1–32.

Scapens, R. W., 1994. Never mind the gap: towards an institutional perspective of management accounting practices, Management Accounting Research, 5(3 /4), 30 1-32 1.

Siti-Nabiha, AK. and Scapens, RW. (2005), “Stability and change: an institutionalist study of accounting change”, Accounting, Auditing & Accountability Journal, 18(1), 44-73.

ter Bogt, H.J. and Scapens, R.W., (2019), Institutions, situated rationality and agency in management accounting: A research note extending the Burns and Scapens framework. Accounting, Auditing & Accountability Journal, Vol. 32 No. 6, pp. 1801-1825.

Vaivio, J. (1999) Exploring a “non-financial” management accounting change. *Management Accounting Research*, 10, 409-437.

Vaivio, J. (2008) Qualitative management accounting research: rationale, pitfalls and potentials. Qualitative Research in Accounting & Management, 5, 64-86.

Valuckas, D. (2018). “Budgeting reconsidered: exploring change initiative in a bank”, Journal of Accounting & Organizational Change Vol. 15 No. 1, 100-126.

Van der Steen, M. (2009), "Inertia and management accounting change: the role of ambiguity and contradiction between formal rules and routines", Accounting, Auditing & Accountability Journal, 22(5), 736-761.

Wahyudi, I. (2009), "From physical to accounting control: a case study of accounting change resistance", Journal of Accounting and Organizational Change, 19(6), 228-242.

Yazdifar, H., Zaman, M., Tsamenyi, M. and Askarany, D. (2008), "Management accounting change in a subsidiary organisation", Critical Perspectives on Accounting, Vol. 19 No. 3, 404-430.

Appendices

Appendix 1: List of interviews

Interviewee:	Date:	Time:
CEO	22.5.2020	61 min
CFO	28.5.2020	43 min
Group controller	29.5.2020	66 min
Systems business line manager	12.6.2020	51 min
Telecom business line manager	20.5.2020	38 min
Operations manager	15.6.2020	58 min

Appendix 2: Semi-structured interview templates

Interview template 1: Corporate management

Background

1. What was your position in the company during the change?
2. Please describe what the accounting system was like before the change? What were the managers held accountable for in financial view? What was the problem of this system?
3. Had the previous structure been implemented fully? How was this working?
4. What were the organizational changes made?
5. What were the accounting changes made with regards to reporting, performance measures? Were targets set? Were there incentives?

From functional to matrix organization

1. What were the reasons to change organizational structures and accounting?
   a. External
   b. Internal
2. What was the goal of the change?
3. Why was this specific structure and these specific measures chosen?
4. What was the design of management accounting system?
5. How did the change process unfold?

Resistance and barriers

1. Barriers to change?
2. What resistance occurred in relation to the structure and accounting systems change? What was the reason for resistance?
3. How did resistance affect the outcome?
4. Were the goals of the change achieved? Was the resulting system optimal?
5. How was the implementation of the system? What problems started to manifest?
6. Were the old ways of working changed

From Matrix to business unit organization

1. How was the structure and accounting systems changed?
2. What were the reasons for the change?

3. Was this change successful?
4. Were there significant personnel changes?
5. Was there barriers or resistance to this change?
6. Was the outcome of the change intended and were goals achieved?

Interview template 2: Business line and operations managers

Background

6. What was your position in the company before the change? How did your position change?
7. What was the problem of the previous structure and accounting system?
8. What in your view was the reason for changing structure and reporting system?
    a. External
    b. Internal
9. Did you agree with the need for change? And the goals?
10. Were the official goals in line with your perceptions

From functional to matrix organization

1. Were you being held accountable for your results using new system?
6. In your view, what were the problems with the new structure and accounting systems
7. What were the benefits compared to old system?
8. Did the new system help in managerial work? Were decisions made using information?
9. Did you voice any concerns over the new systems?
10. Were the goals of the change achieved?

From Matrix to Business unit organization

7. What were the reasons for the second change?
8. Did the change alleviate the problems with the first system?
9. Was this system useful in managerial work? Were decisions made using the information?